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March 5, 2021

VIA ELECTRONIC FILING

Ms. Kimberley A. Campbell Chief Clerk North Carolina Utilities Commission 4325 Mail Service Center Raleigh, North Carolina 27699-4300

RE: Duke Energy Progress, LLC's and Duke Energy Carolinas, LLC's

Cross-Examination Exhibits

Docket Nos. E-2, Sub 1177 and E-7, Sub 1172

Dear Ms. Campbell:

Please find enclosed for filing in the above-referenced dockets Duke Energy Progress, LLC's and Duke Energy Carolinas, LLC's Cross-Examination Exhibits introduced at the hearing on March 3, 2021.

If you have any questions, please let me know.

Sincerely,

Kendrick C. Fentress

Kendrick C. Sertress

Enclosure

cc: Parties of Record

DUKE ENERGY PROGRESS, LLC AND DUKE ENERGY CAROLINAS, LLC'S LIST OF CROSS-EXAMINATION EXHIBITS ATTACHED DOCKET NOS. E-2, SUB 1177 AND E-7, SUB 1172

Attachment	Marked Exhibit No.	Description
No.		
1	Collins Cross-Examination	FERC Form 556, filed by Alcoa Power
	Exhibit No. 1	Generating Inc., FERC Docket No.
		QF16-1309, Falls Facility (September
		28, 2016)
2	Collins Cross-Examination	FERC Form 556, filed by Alcoa Power
	Exhibit No. 2	Generating Inc., FERC Docket No.
		QF16-1310, High Rock Facility
		(September 28, 2016)
3	Collins Cross-Examination	FERC Form 556, filed by Alcoa Power
	Exhibit No. 3	Generating Inc., FERC Docket No.
		QF16-1311, Tuckertown Facility
		(September 28, 2016)
4	Collins Cross-Examination	FERC Order Approving Transfer of
	Exhibit No. 4	License, FERC Project No. 2197-109
		(December 13, 2016)
5	Collins Cross-Examination	FERC Form 556, filed by Cube Yadkin
	Exhibit No. 5	Generation LLC, FERC Docket No.
		QF16-1309, and NCUC Docket Nos.
		SP-9172, Sub 2 and SP-8760, Sub 0),
		Falls Facility (March 9, 2018)
6	Collins Cross-Examination	FERC Form 556, filed by Cube Yadkin
	Exhibit No. 6	Generation LLC, FERC Docket No.
		QF16-1310, and NCUC Docket Nos.
		SP-9172, Sub 0 and SP-8758, Sub 0),
	Collins Cross-Examination	High Rock Facility (March 9, 2018)
7	Exhibit No. 7	FERC Form 556, filed by Cube Yadkin
/	EXHIBIT NO. /	Generation LLC, FERC Docket No.
		QF16-1311, and NCUC Docket Nos. SP-9172, Sub 1 and SP-8759, Sub 0),
		Tuckertown Facility (March 9, 2018)

FEDERAL ENERGY REGULATORY COMMISSION WASHINGTON, DC

OMB Control # 1902-0075 Expiration 06/30/2019

Form 556 Certification of Qualifying Facility (QF) Status for a Small Power Production or Cogeneration Facility

General

Questions about completing this form should be sent to Form556@ferc.gov. Information about the Commission's QF program, answers to frequently asked questions about QF requirements or completing this form, and contact information for QF program staff are available at the Commission's QF website, www.ferc.gov/QF. The Commission's QF website also provides links to the Commission's QF regulations (18 C.F.R. § 131.80 and Part 292), as well as other statutes and orders pertaining to the Commission's QF program.

Who Must File

Any applicant seeking QF status or recertification of QF status for a generating facility with a net power production capacity (as determined in lines 7a through 7g below) greater than 1000 kW must file a self-certification or an application for Commission certification of QF status, which includes a properly completed Form 556. Any applicant seeking QF status for a generating facility with a net power production capacity 1000 kW or less is exempt from the certification requirement, and is therefore not required to complete or file a Form 556. See 18 C.F.R. § 292.203.

How to Complete the Form 556

This form is intended to be completed by responding to the items in the order they are presented, according to the instructions given. If you need to back-track, you may need to clear certain responses before you will be allowed to change other responses made previously in the form. If you experience problems, click on the nearest help button () for assistance, or contact Commission staff at Form556@ferc.gov.

Certain lines in this form will be automatically calculated based on responses to previous lines, with the relevant formulas shown. You must respond to all of the previous lines within a section before the results of an automatically calculated field will be displayed. If you disagree with the results of any automatic calculation on this form, contact Commission staff at Form556@ferc.gov to discuss the discrepancy before filing.

You must complete all lines in this form unless instructed otherwise. Do not alter this form or save this form in a different format. Incomplete or altered forms, or forms saved in formats other than PDF, will be rejected.

How to File a Completed Form 556

Applicants are required to file their Form 556 electronically through the Commission's eFiling website (see instructions on page 2). By filing electronically, you will reduce your filing burden, save paper resources, save postage or courier charges, help keep Commission expenses to a minimum, and receive a much faster confirmation (via an email containing the docket number assigned to your facility) that the Commission has received your filing.

If you are simultaneously filing both a waiver request and a Form 556 as part of an application for Commission certification, see the "Waiver Requests" section on page 3 for more information on how to file.

Paperwork Reduction Act Notice

This form is approved by the Office of Management and Budget. Compliance with the information requirements established by the FERC Form No. 556 is required to obtain or maintain status as a QF. See 18 C.F.R. § 131.80 and Part 292. An agency may not conduct or sponsor, and a person is not required to respond to, a collection of information unless it displays a currently valid OMB control number. The estimated burden for completing the FERC Form No. 556, including gathering and reporting information, is as follows: 3 hours for self-certification of a small power production facility, 8 hours for self-certifications of a cogeneration facility, 6 hours for an application for Commission certification of a small power production facility, and 50 hours for an application for Commission certification of a cogeneration facility. Send comments regarding this burden estimate or any aspect of this collection of information, including suggestions for reducing this burden, to the following: Information Clearance Officer, Office of the Executive Director (ED-32), Federal Energy Regulatory Commission, 888 First Street N.E., Washington, DC 20426 (DataClearance@ferc.gov); and Desk Officer for FERC, Office of Information and Regulatory Affairs, Office of Management and Budget, Washington, DC 20503 (oira_submission@omb.eop.gov). Include the Control No. 1902-0075 in any correspondence.

FERC Form 556 Page 2 - Instructions

Electronic Filing (eFiling)

To electronically file your Form 556, visit the Commission's QF website at www.ferc.gov/QF and click the eFiling link.

If you are eFiling your first document, you will need to register with your name, email address, mailing address, and phone number. If you are registering on behalf of an employer, then you will also need to provide the employer name, alternate contact name, alternate contact phone number and and alternate contact email.

Once you are registered, log in to eFiling with your registered email address and the password that you created at registration. Follow the instructions. When prompted, select one of the following QF-related filing types, as appropriate, from the Electric or General filing category.

Filing category	Filing Type as listed in eFiling	Description
	(Fee) Application for Commission Cert. as Cogeneration QF	Use to submit an application for Commission certification or Commission recertification of a cogeneration facility as a QF.
	(Fee) Application for Commission Cert. as Small Power QF	Use to submit an application for Commission certification or Commission recertification of a small power production facility as a QF.
	Self-Certification Notice (QF, EG, FC)	Use to submit a notice of self- certification of your facility (cogeneration or small power production) as a QF.
Electric	Self-Recertification of Qualifying Facility (QF)	Use to submit a notice of self- recertification of your facility (cogeneration or small power production) as a QF.
	Supplemental Information or Request	Use to correct or supplement a Form 556 that was submitted with errors or omissions, or for which Commission staff has requested additional information. Do not use this filing type to report new changes to a facility or its ownership; rather, use a self- recertification or Commission recertification to report such changes.
General	(Fee) Petition for Declaratory Order (not under FPA Part 1)	Use to submit a petition for declaratory order granting a waiver of Commission QF regulations pursuant to 18 C.F.R. §§ 292.204(a) (3) and/or 292.205(c). A Form 556 is not required for a petition for declaratory order unless Commission recertification is being requested as part of the petition.

You will be prompted to submit your filing fee, if applicable, during the electronic submission process. Filing fees can be paid via electronic bank account debit or credit card.

During the eFiling process, you will be prompted to select your file(s) for upload from your computer.

FERC Form 556 Page 3 - Instructions

Filing Fee

No filing fee is required if you are submitting a self-certification or self-recertification of your facility as a QF pursuant to 18 C.F.R. § 292.207(a).

A filing fee is required if you are filing either of the following:

(1) an application for Commission certification or recertification of your facility as a QF pursuant to 18 C.F.R. § 292.207(b), or

(2) a petition for declaratory order granting waiver pursuant to 18 C.F.R. §§ 292.204(a)(3) and/or 292.205(c).

The current fees for applications for Commission certifications and petitions for declaratory order can be found by visiting the Commission's QF website at www.ferc.gov/QF and clicking the Fee Schedule link.

You will be prompted to submit your filing fee, if applicable, during the electronic filing process described on page 2.

Required Notice to Utilities and State Regulatory Authorities

Pursuant to 18 C.F.R. § 292.207(a)(ii), you must provide a copy of your self-certification or request for Commission certification to the utilities with which the facility will interconnect and/or transact, as well as to the State regulatory authorities of the states in which your facility and those utilities reside. Links to information about the regulatory authorities in various states can be found by visiting the Commission's QF website at www.ferc.gov/QF and clicking the Notice Requirements link.

What to Expect From the Commission After You File

An applicant filing a Form 556 electronically will receive an email message acknowledging receipt of the filing and showing the docket number assigned to the filing. Such email is typically sent within one business day, but may be delayed pending confirmation by the Secretary of the Commission of the contents of the filing.

An applicant submitting a self-certification of QF status should expect to receive no documents from the Commission, other than the electronic acknowledgement of receipt described above. Consistent with its name, a self-certification is a certification by the applicant itself that the facility meets the relevant requirements for QF status, and does not involve a determination by the Commission as to the status of the facility. An acknowledgement of receipt of a self-certification, in particular, does not represent a determination by the Commission with regard to the QF status of the facility. An applicant self-certifying may, however, receive a rejection, revocation or deficiency letter if its application is found, during periodic compliance reviews, not to comply with the relevant requirements.

An applicant submitting a request for Commission certification will receive an order either granting or denying certification of QF status, or a letter requesting additional information or rejecting the application. Pursuant to 18 C.F.R. § 292.207(b)(3), the Commission must act on an application for Commission certification within 90 days of the later of the filing date of the application or the filing date of a supplement, amendment or other change to the application.

Waiver Requests

18 C.F.R. § 292.204(a)(3) allows an applicant to request a waiver to modify the method of calculation pursuant to 18 C.F.R. § 292.204(a)(2) to determine if two facilities are considered to be located at the same site, for good cause. 18 C.F.R. § 292.205(c) allows an applicant to request waiver of the requirements of 18 C.F.R. §§ 292.205(a) and (b) for operating and efficiency upon a showing that the facility will produce significant energy savings. A request for waiver of these requirements must be submitted as a petition for declaratory order, with the appropriate filing fee for a petition for declaratory order. Applicants requesting Commission recertification as part of a request for waiver of one of these requirements should electronically submit their completed Form 556 along with their petition for declaratory order, rather than filing their Form 556 as a separate request for Commission recertification. Only the filing fee for the petition for declaratory order must be paid to cover both the waiver request and the request for recertification *if such requests are made simultaneously*.

18 C.F.R. § 292.203(d)(2) allows an applicant to request a waiver of the Form 556 filing requirements, for good cause. Applicants filing a petition for declaratory order requesting a waiver under 18 C.F.R. § 292.203(d)(2) do not need to complete or submit a Form 556 with their petition.

FERC Form 556 Page 4 - Instructions

Geographic Coordinates

If a street address does not exist for your facility, then line 3c of the Form 556 requires you to report your facility's geographic coordinates (latitude and longitude). Geographic coordinates may be obtained from several different sources. You can find links to online services that show latitude and longitude coordinates on online maps by visiting the Commission's QF webpage at www.ferc.gov/QF and clicking the Geographic Coordinates link. You may also be able to obtain your geographic coordinates from a GPS device, Google Earth (available free at http://earth.google.com), a property survey, various engineering or construction drawings, a property deed, or a municipal or county map showing property lines.

Filing Privileged Data or Critical Energy Infrastructure Information in a Form 556

The Commission's regulations provide procedures for applicants to either (1) request that any information submitted with a Form 556 be given privileged treatment because the information is exempt from the mandatory public disclosure requirements of the Freedom of Information Act, 5 U.S.C. § 552, and should be withheld from public disclosure; or (2) identify any documents containing critical energy infrastructure information (CEII) as defined in 18 C.F.R. § 388.113 that should not be made public.

If you are seeking privileged treatment or CEII status for any data in your Form 556, then you must follow the procedures in 18 C.F.R. § 388.112. See www.ferc.gov/help/filing-guide/file-ceii.asp for more information.

Among other things (see 18 C.F.R. § 388.112 for other requirements), applicants seeking privileged treatment or CEII status for data submitted in a Form 556 must prepare and file both (1) a complete version of the Form 556 (containing the privileged and/or CEII data), and (2) a public version of the Form 556 (with the privileged and/or CEII data redacted). Applicants preparing and filing these different versions of their Form 556 must indicate below the security designation of this version of their document. If you are *not* seeking privileged treatment or CEII status for any of your Form 556 data, then you should not respond to any of the items on this page.

Non-Public: Applicant is seeking privileged treatment and/or CEII status for data contained in the Form 556 lines indicated below. This non-public version of the applicant's Form 556 contains all data, including the data that is redacted in the (separate) public version of the applicant's Form 556.
 Public (redacted): Applicant is seeking privileged treatment and/or CEII status for data contained in the Form 556 lines indicated below. This public version of the applicants's Form 556 contains all data except for data from the lines indicated below, which has been redacted.
Privileged : Indicate below which lines of your form contain data for which you are seeking privileged treatment
Critical Energy Infrastructure Information (CEII): Indicate below which lines of your form contain data for which you are seeking CEII status

The eFiling process described on page 2 will allow you to identify which versions of the electronic documents you submit are public, privileged and/or CEII. The filenames for such documents should begin with "Public", "Priv", or "CEII", as applicable, to clearly indicate the security designation of the file. Both versions of the Form 556 should be unaltered PDF copies of the Form 556, as available for download from www.ferc.gov/QF. To redact data from the public copy of the submittal, simply omit the relevant data from the Form. For numerical fields, leave the redacted fields blank. For text fields, complete as much of the field as possible, and replace the redacted portions of the field with the word "REDACTED" in brackets. Be sure to identify above all fields which contain data for which you are seeking non-public status.

The Commission is not responsible for detecting or correcting filer errors, including those errors related to security designation. If your documents contain sensitive information, make sure they are filed using the proper security designation.

FEDERAL ENERGY REGULATORY COMMISSION WASHINGTON, DC

OMB Control # 1902-0075 Expiration 06/30/2019

Form 556 Certification of Qualifying Facility (QF) Status for a Small Power Production or Cogeneration Facility

1b Applicant street a 201 Isabella			
1c City		1d State/provi	ince
Pittsburg		PA	
1e Postal code 15212-5858	1f Country (if not United States)		1g Telephone number 412 553 4237
1h Has the instant fa	cility ever previously been certified as a Q	F? Yes N	No 🔀
1i If yes, provide the	docket number of the last known QF filing	g pertaining to th	his facility: QF
1j Under which certi	fication process is the applicant making th	nis filing?	
Notice of self-ce	ertification A	pplication for Co ee; see "Filing Fee	ommission certification (requires filing e" section on page 3)
Note: a notice of self-certification is a notice by the applicant itself that its facility complies with the requirements f QF status. A notice of self-certification does not establish a proceeding, and the Commission does not review a notice of self-certification to verify compliance. See the "What to Expect From the Commission After You File" section on page 3 for more information.			
1k What type(s) of Q	F status is the applicant seeking for its fac	ility? (check all th	nat apply)
Qualifying smal	l power production facility status	ualifying cogene	eration facility status
11 What is the purpo	se and expected effective date(s) of this fi	ling?	
○ Original certifice	ation; facility expected to be installed by	a	nd to begin operation on 1/1/17
Change(s) to a p	previously certified facility to be effective	on	
(identify type(s) of change(s) below, and describe chang	e(s) in the Miscel	laneous section starting on page 19)
☐ Name chang	ge and/or other administrative change(s)		
☐ Change in o	wnership		
☐ Change(s) at	fecting plant equipment, fuel use, power	production capa	acity and/or cogeneration thermal out
Supplement or c	orrection to a previous filing submitted o	n	
(describe the su	pplement or correction in the Miscellaned	ous section starti	ng on page 19)
•	wing three statements is true, check the k sible, explaining any special circumstance		•
\square previously gra	cility complies with the Commission's QF Inted by the Commission in an order date Miscellaneous section starting on page 19	ed	virtue of a waiver of certain regulation (specify any other relevant waiver
	cility would comply with the Commission with this application is granted	's QF requiremer	nts if a petition for waiver submitted
employment of	cility complies with the Commission's reg of unique or innovative technologies not ation of compliance via this form difficult	contemplated by	y the structure of this form, that make

Page 6 - All Facilities FERC Form 556

	2a Name of contact person	2b Telephone number				
Contact Information	Nick Oliver (412) 553-1392					
	2c Which of the following describes the contact person's relationship to the applicant? (check one) Applicant (self) Employee, owner or partner of applicant authorized to represent the applicant Employee of a company affiliated with the applicant authorized to represent the applicant on this matter Lawyer, consultant, or other representative authorized to represent the applicant on this matter					
	2d Company or organization name (if applicant is an individual, check here and skip to line 2e) Alcoa Inc.					
	2e Street address (if same as Applicant, check here and skip to line 3a) Alcoa Corporate Center, 6D09 201 Isabella Street					
O	2f City Pittsburgh PA	te/province				
	2h Postal code					
Facility Identification and Location	Badin Nor 3f County (or check here for independent city) 3g Countr	ts for your facility by checking the box in line 3b, e facility in degrees (to three decimal places). Use minutes and seconds: decimal degrees = ordinates" section on page 4 for help. If you the geographic coordinates below is optional.				
Transacting Utilities	Identify the electric utilities that are contemplated to transact with the facility Aa Identify utility interconnecting with the facility Duke Energy Carolinas and Duke Energy Progress 4b Identify utilities providing wheeling service or check here if none					
Transact	 4c Identify utilities purchasing the useful electric power output or check 4d Identify utilities providing supplementary power, backup power, masservice or check here if none Duke Energy Progress 					

Full legal names of direct owne	holding company	If Y % eq inte
1) Alcoa Power Generating Inc.	Yes ⊠ No □	
2)		
3)	Vaa 🗆 Na 🗀	
4)	Yes No No	
5)	Yes No No	
6)	Yes No No	
7)	Yes No No	
8)	Yes	
9)	Yes	
10)	Yes No No	
5b Upstream (i.e., indirect) ownership as of effective date or of the facility that both (1) hold at least 10 percent equity defined in section 3(22) of the Federal Power Act (16 U.S. 1262(8) of the Public Utility Holding Company Act of 2005 equity interest in the facility held by such owners. (Note:	r interest in the facility, and (2) are electric utilitie C. 796(22)), or holding companies, as defined in 5 (42 U.S.C. 16451(8)). Also provide the percenta that, because upstream owners may be subsidia	ect) ow es, as section age of
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FERC Form 556 Page 8 - All Facilities

	6a	Describe th	e primary energy input: (ch	eck one ma	in c	ategory and, if applicable	, one subc	ategory)	
		Biomas	s (specify)	⊠ Re	enev	vable resources (specify)	☐ Ge	eothermal	
		L	andfill gas		\boxtimes	Hydro power - river	Fc	ossil fuel (spec	fy)
		□ N	lanure digester gas			Hydro power - tidal		☐ Coal (not	waste)
		□ N	lunicipal solid waste			Hydro power - wave		☐ Fuel oil/di	esel
		□ See	ewage digester gas			Solar - photovoltaic		☐ Natural ga	s (not waste)
		□ W	/ood			Solar - thermal		Other foss	
		□ 0	ther biomass (describe on	page 19)		Wind		□ (describe	on page 19)
		☐ Waste (specify type below in line 6	b)		Other renewable resourd (describe on page 19)	e 🗌 Ot	ther (describe	on page 19)
	6b	If you spec	ified "waste" as the primary	energy inpu	ut in	line 6a, indicate the type	of waste f	fuel used: (che	ck one)
		☐ Waste	fuel listed in 18 C.F.R. § 29	2.202(b) (spe	ecify	one of the following)			
			Anthracite culm produced	prior to July	23,	1985			
			Anthracite refuse that has a ash content of 45 percent of		neat	content of 6,000 Btu or le	ess per poi	und and has a	n average
			Bituminous coal refuse tha average ash content of 25				u per pou	nd or less and	has an
nput	Top or bottom subbituminous coal produced on Federal lands or on Indian lands that determined to be waste by the United States Department of the Interior's Bureau of L. (BLM) or that is located on non-Federal or non-Indian lands outside of BLM's jurisdiction the applicant shows that the latter coal is an extension of that determined by BLM to						eau of Land M urisdiction, pro	anagement ovided that	
(BLM) or that is located on non-Federal or non-Indian lands of the applicant shows that the latter coal is an extension of that Coal refuse produced on Federal lands or on Indian lands that BLM or that is located on non-Federal or non-Indian lands ou applicant shows that the latter is an extension of that determined to be waste by the Office States Department of the Office Stat				on-Indian lands outside o	of BLM's ju	risdiction, pro			
ш	Lignite produced in association with the production of montan wax and lignite that becomes expo					es exposed			
	☐ Gaseous fuels (except natural gas and synthetic gas from coal) (descr					cribe on pa	be on page 19)		
			Waste natural gas from gas C.F.R. § 2.400 for waste nat compliance with 18 C.F.R. §	ural gas; inc			-	•	
			Materials that a governmen	nt agency ha	as ce	ertified for disposal by co	mbustion	(describe on p	age 19)
			Heat from exothermic reac	tions (descr	ibe	on page 19)	Residual	heat (describe	on page 19)
			Used rubber tires] Plastic ma	teri	als Refinery	off-gas	☐ Petro	oleum coke
		facility	waste energy input that hay industry (describe in the Note of the	Miscellaneoเ	us se	ection starting on page 19	; include a	a discussion of	
	6с	energy inp	average energy input, calc uts, and provide the related For any oil or natural gas f	l percentage	e of	the total average annual	energy inp	out to the facil	
			Fuel			average energy or specified fuel		age of total energy input	
			Natural gas			0 Btu/h		0 %	
			Oil-based fuels			0 Btu/h		0 %	
			Coal			0 Btu/h		0 %	

FERC Form 556 Page 9 - All Facilities

Indicate the maximum gross and maximum net electric power production capacity of the facility at the point(s) of delivery by completing the worksheet below. Respond to all items. If any of the parasitic loads and/or losses identified in lines 7b through 7e are negligible, enter zero for those lines.

7a The maximum gross power production capacity at the terminals of the individual generator(s) under the most favorable anticipated design conditions	30,000 k	w)
7b Parasitic station power used at the facility to run equipment which is necessary and integral to the power production process (boiler feed pumps, fans/blowers, office or maintenance buildings directly related to the operation of the power generating facility, etc.). If this facility includes non-power production processes (for instance, power consumed by a cogeneration facility's thermal host), do not include any power consumed by the non-power production activities in your		
reported parasitic station power.	1.1 k	:W
7c Electrical losses in interconnection transformers	0 k	w
7d Electrical losses in AC/DC conversion equipment, if any	0 k	w
7e Other interconnection losses in power lines or facilities (other than transformers and AC/DC conversion equipment) between the terminals of the generator(s) and the point of interconnection		
with the utility	112 k	W
7f Total deductions from gross power production capacity = $7b + 7c + 7d + 7e$		
	113.1 k	W
7g Maximum net power production capacity = 7a - 7f		
	29,886.9 k	W

7h Description of facility and primary components: Describe the facility and its operation. Identify all boilers, heat recovery steam generators, prime movers (any mechanical equipment driving an electric generator), electrical generators, photovoltaic solar equipment, fuel cell equipment and/or other primary power generation equipment used in the facility. Descriptions of components should include (as applicable) specifications of the nominal capacities for mechanical output, electrical output, or steam generation of the identified equipment. For each piece of equipment identified, clearly indicate how many pieces of that type of equipment are included in the plant, and which components are normally operating or normally in standby mode. Provide a description of how the components operate as a system. Applicants for cogeneration facilities do not need to describe operations of systems that are clearly depicted on and easily understandable from a cogeneration facility's attached mass and heat balance diagram; however, such applicants should provide any necessary description needed to understand the sequential operation of the facility depicted in their mass and heat balance diagram. If additional space is needed, continue in the Miscellaneous section starting on page 19.

Falls Dam is a concrete gravity structure. The development consists of a non-overflow gravity section, a Stoney gate-controlled spillway section, a Tainter gate-controlled spillway section, a trash gate section, and an integral intake/powerhouse section. The non-overflow gravity section extends from the north end of the spillway section to the river abutment.

The spillway section consists of a Stoney gate section, a Tainter gate section, and a trash gate. There are ten Stoney gates and two Tainter gates to release surplus water during storm or flooding events. The ten Stoney gates are operated by individually fixed electrically powered screw-stem hoists from the spillway deck. Four of the Stoney gates may be remotely operated from the dispatch center in Alcoa, Tennessee, and also manually at the site. The two Tainter gates are operated by a movable, electrically powered hoist from the deck. The trash gate is locally operated by a rising screw stem hoist.

The powerhouse and intake form a single structural unit integral with the dam. The powerhouse is located between the south end of the gate-controlled spillway section and the river abutment. The structure consists of an integral reinforced concrete and concrete gravity substructure and a brick superstructure. The intake structure includes trashracks and six headgates.



Information Required for Small Power Production Facility

If you indicated in line 1k that you are seeking qualifying small power production facility status for your facility, then you

must respond to the items on this page. Otherwise, skip page 10. Pursuant to 18 C.F.R. § 292.204(a), the power production capacity of any small power production facility, together with the power production capacity of any other small power production facilities that use the same energy resource, are owned by the same person(s) or its affiliates, and are located at the same site, may not exceed 80 megawatts. To demonstrate compliance with this size limitation, or to demonstrate that your facility is exempt from this size limitation under the Solar, Wind, Waste, and Geothermal Power Production Incentives Act of 1990 (Pub. L. 101-575, 104 Stat. 2834 (1990) as amended by Pub. L. 102-46, 105 Stat. 249 (1991)), respond to lines 8a through 8e below (as applicable). 8a Identify any facilities with electrical generating equipment located within 1 mile of the electrical generating equipment of the instant facility, and for which any of the entities identified in lines 5a or 5b, or their affiliates, holds at least a 5 percent equity interest. Certification of Compliance Check here if no such facilities exist. Root docket # **Facility location** Maximum net power with Size Limitations (city or county, state) (if any) Common owner(s) production capacity 1) QF 2) QF kW OF kW Check here and continue in the Miscellaneous section starting on page 19 if additional space is needed 8b The Solar, Wind, Waste, and Geothermal Power Production Incentives Act of 1990 (Incentives Act) provides exemption from the size limitations in 18 C.F.R. § 292.204(a) for certain facilities that were certified prior to 1995. Are you seeking exemption from the size limitations in 18 C.F.R. § 292.204(a) by virtue of the Incentives Act? Yes (continue at line 8c below) No (skip lines 8c through 8e) 8c Was the original notice of self-certification or application for Commission certification of the facility filed on or before December 31, 1994? Yes No **8d** Did construction of the facility commence on or before December 31, 1999? Yes 8e If you answered No in line 8d, indicate whether reasonable diligence was exercised toward the completion of the facility, taking into account all factors relevant to construction? Yes No If you answered Yes, provide a brief narrative explanation in the Miscellaneous section starting on page 19 of the construction timeline (in particular, describe why construction started so long after the facility was certified) and the diligence exercised toward completion of the facility. Pursuant to 18 C.F.R. § 292.204(b), qualifying small power production facilities may use fossil fuels, in minimal amounts, for only the following purposes: ignition; start-up; testing; flame stabilization; control use; alleviation or prevention of unanticipated equipment outages; and alleviation or prevention of emergencies, directly affecting the public health, safety, or welfare, which would result from electric power outages. The amount of fossil fuels used for these purposes may not exceed 25 percent of the total energy input of the facility during the 12-month period beginning with the date the facility first produces electric energy or any calendar year thereafter. 9a Certification of compliance with 18 C.F.R. § 292.204(b) with respect to uses of fossil fuel: Applicant certifies that the facility will use fossil fuels *exclusively* for the purposes listed above. 9b Certification of compliance with 18 C.F.R. § 292.204(b) with respect to amount of fossil fuel used annually: Applicant certifies that the amount of fossil fuel used at the facility will not, in aggregate, exceed 25 percent of the total energy input of the facility during the 12-month period beginning with the date the

facility first produces electric energy or any calendar year thereafter.

Information Required for Cogeneration Facility

If you indicated in line 1k that you are seeking qualifying cogeneration facility status for your facility, then you must respond to the items on pages 11 through 13. Otherwise, skip pages 11 through 13.

	energy (such as heat or suse of energy. Pursuant cycle cogeneration facilithermal application or pursuant cycle.	22.202(c), a cogeneration facility produces electric energy and forms of useful thermal steam) used for industrial, commercial, heating, or cooling purposes, through the sequential to 18 C.F.R. § 292.202(s), "sequential use" of energy means the following: (1) for a toppingty, the use of reject heat from a power production process in sufficient amounts in a process to conform to the requirements of the operating standard contained in 18 C.F.R. § obttoming-cycle cogeneration facility, the use of at least some reject heat from a thermal or power production.					
		eneration technology does the facility represent? (check all that apply)					
	Topping-cycle cogeneration Bottoming-cycle cogeneration						
	10b To help demonstrate the sequential operation of the cogeneration process, and to support compliance with other requirements such as the operating and efficiency standards, include with your filing a mass and heat balance diagram depicting average annual operating conditions. This diagram must include certain items and meet certain requirements, as described below. You must check next to the description of each requirement below to certify that you have complied with these requirements.						
	Check to certify compliance with						
	indicated requirement	Requirement					
ration n		Diagram must show orientation within system piping and/or ducts of all prime movers, heat recovery steam generators, boilers, electric generators, and condensers (as applicable), as well as any other primary equipment relevant to the cogeneration process.					
gene natio		Any average annual values required to be reported in lines 10b, 12a, 13a, 13b, 13d, 13f, 14a, 15b, 15d and/or 15f must be computed over the anticipated hours of operation.					
General Cogeneration Information		Diagram must specify all fuel inputs by fuel type and average annual rate in Btu/h. Fuel for supplementary firing should be specified separately and clearly labeled. All specifications of fuel inputs should use lower heating values.					
		Diagram must specify average gross electric output in kW or MW for each generator.					
O		Diagram must specify average mechanical output (that is, any mechanical energy taken off of the shaft of the prime movers for purposes not directly related to electric power generation) in horsepower, if any. Typically, a cogeneration facility has no mechanical output.					
		At each point for which working fluid flow conditions are required to be specified (see below), such flow condition data must include mass flow rate (in lb/h or kg/s), temperature (in °F, R, °C or K), absolute pressure (in psia or kPa) and enthalpy (in Btu/lb or kJ/kg). Exception: For systems where the working fluid is <i>liquid only</i> (no vapor at any point in the cycle) and where the type of liquid and specific heat of that liquid are clearly indicated on the diagram or in the Miscellaneous section starting on page 19, only mass flow rate and temperature (not pressure and enthalpy) need be specified. For reference, specific heat at standard conditions for pure liquid water is approximately 1.002 Btu/ (lb*R) or 4.195 kJ/(kg*K).					
		Diagram must specify working fluid flow conditions at input to and output from each steam turbine or other expansion turbine or back-pressure turbine.					
		Diagram must specify working fluid flow conditions at delivery to and return from each thermal application.					
		Diagram must specify working fluid flow conditions at make-up water inputs.					

	EPAct 2005 cogeneration facilities: The Energy Policy Act of 2005 (EPAct 2005) established a new section 210(n) of the Public Utility Regulatory Policies Act of 1978 (PURPA), 16 USC 824a-3(n), with additional requirements for any qualifying cogeneration facility that (1) is seeking to sell electric energy pursuant to section 210 of PURPA and (2) was either not a cogeneration facility on August 8, 2005, or had not filed a self-certification or application for Commission certification of QF status on or before February 1, 2006. These requirements were implemented by the Commission in 18 C.F.R. § 292.205(d). Complete the lines below, carefully following the instructions, to demonstrate whether these additional requirements apply to your cogeneration facility and, if so, whether your facility complies with such requirements.					
	11a Was your facility operating as a qualifying cogeneration facility on or before August 8, 2005? Yes No	į				
	11b Was the initial filing seeking certification of your facility (whether a notice of self-certification or an application for Commission certification) filed on or before February 1, 2006? Yes No					
ט ע	If the answer to either line 11a or 11b is Yes, then continue at line 11c below. Otherwise, if the answers to both lines 11a and 11b are No, skip to line 11e below.					
Facilities	11c With respect to the design and operation of the facility, have any changes been implemented on or after February 2, 2006 that affect general plant operation, affect use of thermal output, and/or increase net power production capacity from the plant's capacity on February 1, 2006?	•				
	Yes (continue at line 11d below)					
Cogeneration	No. Your facility is not subject to the requirements of 18 C.F.R. § 292.205(d) at this time. However, it may be subject to to these requirements in the future if changes are made to the facility. At such time, the applicant would need to recertify the facility to determine eligibility. Skip lines 11d through 11j.					
oger	11d Does the applicant contend that the changes identified in line 11c are not so significant as to make the facility a "new" cogeneration facility that would be subject to the 18 C.F.R. § 292.205(d) cogeneration requirements?	-				
rom C	Yes. Provide in the Miscellaneous section starting on page 19 a description of any relevant changes made to the facility (including the purpose of the changes) and a discussion of why the facility should not be considered a "new" cogeneration facility in light of these changes. Skip lines 11e through 11j.					
ergy Output from Cogeneration Facilities	No. Applicant stipulates to the fact that it is a "new" cogeneration facility (for purposes of determining the applicability of the requirements of 18 C.F.R. § 292.205(d)) by virtue of modifications to the facility that were initiated on or after February 2, 2006. Continue below at line 11e.					
y O	11e Will electric energy from the facility be sold pursuant to section 210 of PURPA?	į				
W	Yes. The facility is an EPAct 2005 cogeneration facility. You must demonstrate compliance with 18 C.F.R. § 292.205(d)(2) by continuing at line 11f below.					
of En	No. Applicant certifies that energy will <i>not</i> be sold pursuant to section 210 of PURPA. Applicant also certifies its understanding that it must recertify its facility in order to determine compliance with the requirements of 18 C.F.R. § 292.205(d) <i>before</i> selling energy pursuant to section 210 of PURPA in the future. Skip lines 11f through 11j.					
	11f Is the net power production capacity of your cogeneration facility, as indicated in line 7g above, less than or equal to 5,000 kW?	į				
	Yes, the net power production capacity is less than or equal to 5,000 kW. 18 C.F.R. § 292.205(d)(4) provides a rebuttable presumption that cogeneration facilities of 5,000 kW and smaller capacity comply with the requirements for fundamental use of the facility's energy output in 18 C.F.R. § 292.205(d)(2). Applicant certifies its understanding that, should the power production capacity of the facility increase above 5,000 kW, then the facility must be recertified to (among other things) demonstrate compliance with 18 C.F.R. § 292.205(d)(2). Skip lines 11g through 11j.					
	No, the net power production capacity is greater than 5,000 kW. Demonstrate compliance with the requirements for fundamental use of the facility's energy output in 18 C.F.R. § 292.205(d)(2) by continuing on the next page at line 11g.					

Lines 11g through 11k below guide the applicant through the process of demonstrating compliance with the requirements for "fundamental use" of the facility's energy output. 18 C.F.R. § 292.205(d)(2). Only respond to the lines on this page if the instructions on the previous page direct you to do so. Otherwise, skip this page.

18 C.F.R. § 292.205(d)(2) requires that the electrical, thermal, chemical and mechanical output of an EPAct 2005 cogeneration facility is used fundamentally for industrial, commercial, residential or institutional purposes and is not intended fundamentally for sale to an electric utility, taking into account technological, efficiency, economic, and variable thermal energy requirements, as well as state laws applicable to sales of electric energy from a qualifying facility to its host facility. If you were directed on the previous page to respond to the items on this page, then your facility is an EPAct 2005 cogeneration facility that is subject to this "fundamental use" requirement.

The Commission's regulations provide a two-pronged approach to demonstrating compliance with the requirements for fundamental use of the facility's energy output. First, the Commission has established in 18 C.F.R. § 292.205(d)(3) a "fundamental use test" that can be used to demonstrate compliance with 18 C.F.R. § 292.205(d)(2). Under the fundamental use test, a facility is considered to comply with 18 C.F.R. § 292.205(d)(2) if at least 50 percent of the facility's total annual energy output (including electrical, thermal, chemical and mechanical energy output) is used for industrial, commercial, residential or institutional purposes.

Second, an applicant for a facility that does not pass the fundamental use test may provide a narrative explanation of and support for its contention that the facility nonetheless meets the requirement that the electrical, thermal, chemical and mechanical output of an EPAct 2005 cogeneration facility is used fundamentally for industrial, commercial, residential or institutional purposes and is not intended fundamentally for sale to an electric utility, taking into account technological, efficiency, economic, and variable thermal energy requirements, as well as state laws applicable to sales of electric energy from a qualifying facility to its host facility.

Complete lines 11g through 11j below to determine compliance with the fundamental use test in 18 C.F.R. § 292.205(d)(3). Complete lines 11g through 11j even if you do not intend to rely upon the fundamental use test to demonstrate compliance with 18 C.F.R. § 292.205(d)(2).

11g Amount of electrical, thermal, chemical and mechanical energy output (net of internal	
generation plant losses and parasitic loads) expected to be used annually for industrial,	
commercial, residential or institutional purposes and not sold to an electric utility	MWh
11h Total amount of electrical, thermal, chemical and mechanical energy expected to be	
sold to an electric utility	MWh
11i Percentage of total annual energy output expected to be used for industrial,	
commercial, residential or institutional purposes and not sold to a utility	
= 100 * 11g /(11g + 11h)	0 %

11j Is the response in line 11i greater than or equal to 50 percent?

Yes. Your facility complies with 18 C.F.R. § 292.205(d)(2) by virtue of passing the fundamental use test provided in 18 C.F.R. § 292.205(d)(3). Applicant certifies its understanding that, if it is to rely upon passing the fundamental use test as a basis for complying with 18 C.F.R. § 292.205(d)(2), then the facility must comply with the fundamental use test both in the 12-month period beginning with the date the facility first produces electric energy, and in all subsequent calendar years.

No. Your facility does not pass the fundamental use test. Instead, you must provide in the Miscellaneous section starting on page 19 a narrative explanation of and support for why your facility meets the requirement that the electrical, thermal, chemical and mechanical output of an EPAct 2005 cogeneration facility is used fundamentally for industrial, commercial, residential or institutional purposes and is not intended fundamentally for sale to an electric utility, taking into account technological, efficiency, economic, and variable thermal energy requirements, as well as state laws applicable to sales of electric energy from a QF to its host facility. Applicants providing a narrative explanation of why their facility should be found to comply with 18 C.F.R. § 292.205(d)(2) in spite of non-compliance with the fundamental use test may want to review paragraphs 47 through 61 of Order No. 671 (accessible from the Commission's QF website at www.ferc.gov/QF), which provide discussion of the facts and circumstances that may support their explanation. Applicant should also note that the percentage reported above will establish the standard that that facility must comply with, both for the 12-month period beginning with the date the facility first produces electric energy, and in all subsequent calendar years. See Order No. 671 at paragraph 51. As such, the applicant should make sure that it reports appropriate values on lines 11g and 11h above to serve as the

relevant annual standard, taking into account expected variations in production conditions.

Btu/h

6)

Information Required for Topping-Cycle Cogeneration Facility

If you indicated in line 10a that your facility represents topping-cycle cogeneration technology, then you must respond to the items on pages 14 and 15. Otherwise, skip pages 14 and 15.

The thermal energy output of a topping-cycle cogeneration facility is the net energy made available to an industrial
or commercial process or used in a heating or cooling application. Pursuant to sections 292.202(c), (d) and (h) of the
Commission's regulations (18 C.F.R. §§ 292.202(c), (d) and (h)), the thermal energy output of a qualifying topping-
cycle cogeneration facility must be useful. In connection with this requirement, describe the thermal output of the
topping-cycle cogeneration facility by responding to lines 12a and 12b below.

	Name of entity (thermal host) taking thermal output	Thermal host's relationship to facility; Thermal host's use of thermal output	Average annual rate of thermal output attributable to use (net of heat contained in process return or make-up water)
1)		Select thermal host's relationship to facility	
1)		Select thermal host's use of thermal output	Btu/h
2)		Select thermal host's relationship to facility	
۷)		Select thermal host's use of thermal output	Btu/h
3)		Select thermal host's relationship to facility	
٥)		Select thermal host's use of thermal output	Btu/h
4)		Select thermal host's relationship to facility	
7)		Select thermal host's use of thermal output	Btu/h
5)		Select thermal host's relationship to facility	
(د		Select thermal host's use of thermal output	Btu/h
	I	·	1

12b Demonstration of usefulness of thermal output: At a minimum, provide a brief description of each use of the thermal output identified above. In some cases, this brief description is sufficient to demonstrate usefulness. However, if your facility's use of thermal output is not common, and/or if the usefulness of such thermal output is not reasonably clear, then you must provide additional details as necessary to demonstrate usefulness. Your application may be rejected and/or additional information may be required if an insufficient showing of usefulness is made. (Exception: If you have previously received a Commission certification approving a specific use of thermal output related to the instant facility, then you need only provide a brief description of that use and a reference by date and docket number to the order certifying your facility with the indicated use. Such exemption may not be used if any change creates a material deviation from the previously authorized use.) If additional space is needed, continue in the Miscellaneous section starting on page 19.

Select thermal host's relationship to facility

Select thermal host's use of thermal output

Check here and continue in the Miscellaneous section starting on page 19 if additional space is needed

Applicants for facilities representing topping-cycle technology must demonstrate compliance with the topping-cycle operating standard and, if applicable, efficiency standard. Section 292.205(a)(1) of the Commission's regulations (18 C.F.R. § 292.205(a)(1)) establishes the operating standard for topping-cycle cogeneration facilities:
the useful thermal energy output must be no less than 5 percent of the total energy output. Section 292.205(a)(2)
(18 C.F.R. § 292.205(a)(2)) establishes the efficiency standard for topping-cycle cogeneration facilities for which
installation commenced on or after March 13, 1980: the useful power output of the facility plus one-half the useful
thermal energy output must (A) be no less than 42.5 percent of the total energy input of natural gas and oil to the
facility; and (B) if the useful thermal energy output is less than 15 percent of the total energy output of the facility,
be no less than 45 percent of the total energy input of natural gas and oil to the facility. To demonstrate
compliance with the topping-cycle operating and/or efficiency standards, or to demonstrate that your facility is
exempt from the efficiency standard based on the date that installation commenced, respond to lines 13a through
13l below.

If you indicated in line 10a that your facility represents *both* topping-cycle and bottoming-cycle cogeneration technology, then respond to lines 13a through 13l below considering only the energy inputs and outputs attributable to the topping-cycle portion of your facility. Your mass and heat balance diagram must make clear which mass and energy flow values and system components are for which portion (topping or bottoming) of the cogeneration system.

13a Indicate the annual average rate of useful thermal energy output made available	
to the host(s), net of any heat contained in condensate return or make-up water	Btu/h
13b Indicate the annual average rate of net electrical energy output	
	kW
13c Multiply line 13b by 3,412 to convert from kW to Btu/h	
	0 Btu/h
13d Indicate the annual average rate of mechanical energy output taken directly off	
of the shaft of a prime mover for purposes not directly related to power production	
(this value is usually zero)	hp
13e Multiply line 13d by 2,544 to convert from hp to Btu/h	·
	0 Btu/h
13f Indicate the annual average rate of energy input from natural gas and oil	
,	Btu/h
13g Topping-cycle operating value = 100 * 13a / (13a + 13c + 13e)	Dedyff
Topping cycle operating talde 100 1507 (150 1 150 1 150)	0 %
13h Topping-cycle efficiency value = 100 * (0.5*13a + 13c + 13e) / 13f	0 70
Topping eyele emeleney value 100 (old 150 1 150 1 150), 151	0 %
13i Compliance with operating standard: Is the operating value shown in line 13g gr	
131 Compliance with operating standard. Is the operating value shown in line 139 gr	eater than or equal to 3%:
Yes (complies with operating standard) No (does not comply w	ith operating standard)
13j Did installation of the facility in its current form commence on or after March 13,	1980?
Yes. Your facility is subject to the efficiency requirements of 18 C.F.R. § 292.20	15(a)(2) Demonstrate
compliance with the efficiency requirement by responding to line 13k or 13l, a	
compliance with the efficiency requirement by responding to line 15k of 15i, 8	as applicable, below.
No. Your facility is exempt from the efficiency standard. Skip lines 13k and 13	l.
13k Compliance with efficiency standard (for low operating value): If the operating v	
than 15%, then indicate below whether the efficiency value shown in line 13h greater	than or equal to 45%:
Yes (complies with efficiency standard) No (does not comply w	ith efficiency standard)
13l Compliance with efficiency standard (for high operating value): If the operating value greater than or equal to 15%, then indicate below whether the efficiency value shown equal to 42.5%:	
Yes (complies with efficiency standard) No (does not comply w	ith efficiency standard)

Information Required for Bottoming-Cycle Cogeneration Facility

If you indicated in line 10a that your facility represents bottoming-cycle cogeneration technology, then you must respond to the items on pages 16 and 17. Otherwise, skip pages 16 and 17.

14a		mal host and each bottoming-cycle cogeneration protection of the ottoming-cycle cogeneration processes, provide the	e data for each process in
	Name of entity (thermal host) performing the process from which at least some of the reject heat is used for power production	Thermal host's relationship to facility; Thermal host's process type	Has the energy input to the thermal host been augmented for purposes of increasing power production capacity? (if Yes, describe on p. 19)
1)		Select thermal host's relationship to facility	Yes No
1)		Select thermal host's process type	
2)		Select thermal host's relationship to facility	Yes No
2)		Select thermal host's process type	
2)		Select thermal host's relationship to facility	Yes No
3)		Select thermal host's process type	
			. !
ider	Demonstration of usefulness of atified above. In some cases, this	the Miscellaneous section starting on page 19 if adding the first thermal output: At a minimum, provide a brief destroyer brief description is sufficient to demonstrate useful	cription of each process ness. However, if your
ider facil mus add prev facil to tl	Demonstration of usefulness of ntified above. In some cases, this lity's process is not common, and it provide additional details as ne itional information may be requiviously received a Commission cellity, then you need only provide ane order certifying your facility we	he Miscellaneous section starting on page 19 if addi	cription of each process ness. However, if your easonably clear, then you on may be rejected and/or (Exception: If you have ocess related to the instant y date and docket number be used if any material

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Applicants for facilities representing bottoming-cycle technology and for which installation commenced on or after March 13, 1990 must demonstrate compliance with the bottoming-cycle efficiency standards. Section 292.205(b) of the Commission's regulations (18 C.F.R. § 292.205(b)) establishes the efficiency standard for bottoming-cycle cogeneration facilities: the useful power output of the facility must be no less than 45 percent of the energy input of natural gas and oil for supplementary firing. To demonstrate compliance with the bottoming-cycle efficiency standard (if applicable), or to demonstrate that your facility is exempt from this standard based on the date that installation of the facility began, respond to lines 15a through 15h below.

If you indicated in line 10a that your facility represents *both* topping-cycle and bottoming-cycle cogeneration technology, then respond to lines 15a through 15h below considering only the energy inputs and outputs attributable to the bottoming-cycle portion of your facility. Your mass and heat balance diagram must make clear which mass and energy flow values and system components are for which portion of the cogeneration system (topping or bottoming).

(topping or bottoming).	
15a Did installation of the facility in its current form commence on or after March 13,	1980?
Yes. Your facility is subject to the efficiency requirement of 18 C.F.R. § 292.205 with the efficiency requirement by responding to lines 15b through 15h below	-
No. Your facility is exempt from the efficiency standard. Skip the rest of page	17.
15b Indicate the annual average rate of net electrical energy output	kW
15c Multiply line 15b by 3,412 to convert from kW to Btu/h	0 Btu/h
15d Indicate the annual average rate of mechanical energy output taken directly off of the shaft of a prime mover for purposes not directly related to power production (this value is usually zero)	hp
15e Multiply line 15d by 2,544 to convert from hp to Btu/h	n Btu/h
15f Indicate the annual average rate of supplementary energy input from natural gas or oil	Btu/h
15g Bottoming-cycle efficiency value = 100 * (15c + 15e) / 15f	0 %
15h Compliance with efficiency standard: Indicate below whether the efficiency value than or equal to 45%:	e shown in line 15g is greater
Yes (complies with efficiency standard) No (does not comply wi	th efficiency standard)

FERC Form 556 Page 18 - All Facilities

Certificate of Completeness, Accuracy and Authority

Applicant must certify compliance with and understanding of filing requirements by checking next to each item below and signing at the bottom of this section. Forms with incomplete Certificates of Completeness, Accuracy and Authority will be rejected by the Secretary of the Commission.

Signer identified below certifies the following: (check all items and applicable subitems)

signer identified below certifies the follow	ving. (Check all items and applicable subitems)	
<u> </u>	g any information contained in any attached do d any information contained in the Miscellaneou	
\bowtie He or she has provided all of the requ to the best of his or her knowledge an	ired information for certification, and the provind belief.	ded information is true as stated,
He or she possess full power and auth Practice and Procedure (18 C.F.R. § 38	nority to sign the filing; as required by Rule 2005 35.2005(a)(3)), he or she is one of the following:	5(a)(3) of the Commission's Rules of (check one)
☐ The person on whose behalf t	the filing is made	
$\ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ $	trust, association, or other organized group on	behalf of which the filing is made
\Box An officer, agent, or employe filing is made	of the governmental authority, agency, or instr	umentality on behalf of which the
A representative qualified to practice and Procedure (18 C.	practice before the Commission under Rule 210 F.R. § 385.2101) and who possesses authority to	of the Commission's Rules of o sign
He or she has reviewed all automatic Miscellaneous section starting on page	calculations and agrees with their results, unles ge 19.	ss otherwise noted in the
interconnect and transact (see lines 4 facility and those utilities reside. See page 3 for more information. Provide your signature, address and signa Procedure (18 C.F.R. § 385.2005(c)) provide	Form 556 and all attachments to the utilities what through 4d), as well as to the regulatory auth the Required Notice to Public Utilities and State ture date below. Rule 2005(c) of the Commission es that persons filing their documents electronical documents. A person filing this document ded below.	orities of the states in which the e Regulatory Authorities section on on's Rules of Practice and ically may use typed characters
Your Signature	Your address	Date
David R. Poe	2001 M Street, NW, Suite 900 Washington, DC 20036-3310	9/28/2016
Audit Notes		
Commission Staff Use Only:]

FERC Form 556 Page 19 - All Facilities

Miscellaneous

Use this space to provide any information for which there was not sufficient space in the previous sections of the form to provide. For each such item of information *clearly identify the line number that the information belongs to*. You may also use this space to provide any additional information you believe is relevant to the certification of your facility.

Your response below is not limited to one page. Additional page(s) will automatically be inserted into this form if the length of your response exceeds the space on this page. Use as many pages as you require.

Line 11)

01/01/1917.

Line 7h)

The Falls powerhouse contains one 10,410 kW S. Morgan Smith vertical Francis turbine unit (Unit 1) and two 11,190 kW Allis Chalmers propeller-type turbine units (Units 2 and 3), each operating under a net head of 54.0 ft, and direct-connected to generators having a total capacity of 33,750 kW (Unit 1 @ 8,750 kW, Units 2 and 3 @ 12,500 kW) for a total generating capacity of 31,130 kW as limited by the generator for Unit 1 and the turbines for Units 2 and 3. The Falls Development has a total hydraulic capacity of 8,570 cfs.

Nar 05 2021

FEDERAL ENERGY REGULATORY COMMISSION WASHINGTON, DC

OMB Control # 1902-0075 Expiration 06/30/2019

Form 556 Certification of Qualifying Facility (QF) Status for a Small Power Production or Cogeneration Facility

General

Questions about completing this form should be sent to Form556@ferc.gov. Information about the Commission's QF program, answers to frequently asked questions about QF requirements or completing this form, and contact information for QF program staff are available at the Commission's QF website, www.ferc.gov/QF. The Commission's QF website also provides links to the Commission's QF regulations (18 C.F.R. § 131.80 and Part 292), as well as other statutes and orders pertaining to the Commission's QF program.

Who Must File

Any applicant seeking QF status or recertification of QF status for a generating facility with a net power production capacity (as determined in lines 7a through 7g below) greater than 1000 kW must file a self-certification or an application for Commission certification of QF status, which includes a properly completed Form 556. Any applicant seeking QF status for a generating facility with a net power production capacity 1000 kW or less is exempt from the certification requirement, and is therefore not required to complete or file a Form 556. *See* 18 C.F.R. § 292.203.

How to Complete the Form 556

This form is intended to be completed by responding to the items in the order they are presented, according to the instructions given. If you need to back-track, you may need to clear certain responses before you will be allowed to change other responses made previously in the form. If you experience problems, click on the nearest help button () for assistance, or contact Commission staff at Form556@ferc.gov.

Certain lines in this form will be automatically calculated based on responses to previous lines, with the relevant formulas shown. You must respond to all of the previous lines within a section before the results of an automatically calculated field will be displayed. If you disagree with the results of any automatic calculation on this form, contact Commission staff at Form556@ferc.gov to discuss the discrepancy before filing.

You must complete all lines in this form unless instructed otherwise. Do not alter this form or save this form in a different format. Incomplete or altered forms, or forms saved in formats other than PDF, will be rejected.

How to File a Completed Form 556

Applicants are required to file their Form 556 electronically through the Commission's eFiling website (see instructions on page 2). By filing electronically, you will reduce your filing burden, save paper resources, save postage or courier charges, help keep Commission expenses to a minimum, and receive a much faster confirmation (via an email containing the docket number assigned to your facility) that the Commission has received your filing.

If you are simultaneously filing both a waiver request and a Form 556 as part of an application for Commission certification, see the "Waiver Requests" section on page 3 for more information on how to file.

Paperwork Reduction Act Notice

This form is approved by the Office of Management and Budget. Compliance with the information requirements established by the FERC Form No. 556 is required to obtain or maintain status as a QF. See 18 C.F.R. § 131.80 and Part 292. An agency may not conduct or sponsor, and a person is not required to respond to, a collection of information unless it displays a currently valid OMB control number. The estimated burden for completing the FERC Form No. 556, including gathering and reporting information, is as follows: 3 hours for self-certification of a small power production facility, 8 hours for self-certifications of a cogeneration facility, 6 hours for an application for Commission certification of a small power production facility, and 50 hours for an application for Commission certification of a cogeneration facility. Send comments regarding this burden estimate or any aspect of this collection of information, including suggestions for reducing this burden, to the following: Information Clearance Officer, Office of the Executive Director (ED-32), Federal Energy Regulatory Commission, 888 First Street N.E., Washington, DC 20426 (DataClearance@ferc.gov); and Desk Officer for FERC, Office of Information and Regulatory Affairs, Office of Management and Budget, Washington, DC 20503 (oira_submission@omb.eop.gov). Include the Control No. 1902-0075 in any correspondence.

FERC Form 556 Page 2 - Instructions

Electronic Filing (eFiling)

To electronically file your Form 556, visit the Commission's QF website at www.ferc.gov/QF and click the eFiling link.

If you are eFiling your first document, you will need to register with your name, email address, mailing address, and phone number. If you are registering on behalf of an employer, then you will also need to provide the employer name, alternate contact name, alternate contact phone number and and alternate contact email.

Once you are registered, log in to eFiling with your registered email address and the password that you created at registration. Follow the instructions. When prompted, select one of the following QF-related filing types, as appropriate, from the Electric or General filing category.

Filing category	Filing Type as listed in eFiling	Description		
	(Fee) Application for Commission Cert. as Cogeneration QF	Use to submit an application for Commission certification or Commission recertification of a cogeneration facility as a QF.		
	(Fee) Application for Commission Cert. as Small Power QF	Use to submit an application for Commission certification or Commission recertification of a small power production facility as a QF.		
	Self-Certification Notice (QF, EG, FC)	Use to submit a notice of self- certification of your facility (cogeneration or small power production) as a QF.		
Electric	Self-Recertification of Qualifying Facility (QF)	Use to submit a notice of self- recertification of your facility (cogeneration or small power production) as a QF.		
	Supplemental Information or Request	Use to correct or supplement a Form 556 that was submitted with errors or omissions, or for which Commission staff has requested additional information. Do not use this filing type to report new changes to a facility or its ownership; rather, use a self- recertification or Commission recertification to report such changes.		
General	(Fee) Petition for Declaratory Order (not under FPA Part 1)	Use to submit a petition for declaratory order granting a waiver of Commission QF regulations pursuant to 18 C.F.R. §§ 292.204(a) (3) and/or 292.205(c). A Form 556 is not required for a petition for declaratory order unless Commission recertification is being requested as part of the petition.		

You will be prompted to submit your filing fee, if applicable, during the electronic submission process. Filing fees can be paid via electronic bank account debit or credit card.

During the eFiling process, you will be prompted to select your file(s) for upload from your computer.

FERC Form 556 Page 3 - Instructions

Filing Fee

No filing fee is required if you are submitting a self-certification or self-recertification of your facility as a QF pursuant to 18 C.F.R. § 292.207(a).

A filing fee is required if you are filing either of the following:

(1) an application for Commission certification or recertification of your facility as a QF pursuant to 18 C.F.R. § 292.207(b), or

(2) a petition for declaratory order granting waiver pursuant to 18 C.F.R. §§ 292.204(a)(3) and/or 292.205(c).

The current fees for applications for Commission certifications and petitions for declaratory order can be found by visiting the Commission's QF website at www.ferc.gov/QF and clicking the Fee Schedule link.

You will be prompted to submit your filing fee, if applicable, during the electronic filing process described on page 2.

Required Notice to Utilities and State Regulatory Authorities

Pursuant to 18 C.F.R. § 292.207(a)(ii), you must provide a copy of your self-certification or request for Commission certification to the utilities with which the facility will interconnect and/or transact, as well as to the State regulatory authorities of the states in which your facility and those utilities reside. Links to information about the regulatory authorities in various states can be found by visiting the Commission's QF website at www.ferc.gov/QF and clicking the Notice Requirements link.

What to Expect From the Commission After You File

An applicant filing a Form 556 electronically will receive an email message acknowledging receipt of the filing and showing the docket number assigned to the filing. Such email is typically sent within one business day, but may be delayed pending confirmation by the Secretary of the Commission of the contents of the filing.

An applicant submitting a self-certification of QF status should expect to receive no documents from the Commission, other than the electronic acknowledgement of receipt described above. Consistent with its name, a self-certification is a certification by the applicant itself that the facility meets the relevant requirements for QF status, and does not involve a determination by the Commission as to the status of the facility. An acknowledgement of receipt of a self-certification, in particular, does not represent a determination by the Commission with regard to the QF status of the facility. An applicant self-certifying may, however, receive a rejection, revocation or deficiency letter if its application is found, during periodic compliance reviews, not to comply with the relevant requirements.

An applicant submitting a request for Commission certification will receive an order either granting or denying certification of QF status, or a letter requesting additional information or rejecting the application. Pursuant to 18 C.F.R. § 292.207(b)(3), the Commission must act on an application for Commission certification within 90 days of the later of the filing date of the application or the filing date of a supplement, amendment or other change to the application.

Waiver Requests

18 C.F.R. § 292.204(a)(3) allows an applicant to request a waiver to modify the method of calculation pursuant to 18 C.F.R. § 292.204(a)(2) to determine if two facilities are considered to be located at the same site, for good cause. 18 C.F.R. § 292.205(c) allows an applicant to request waiver of the requirements of 18 C.F.R. §§ 292.205(a) and (b) for operating and efficiency upon a showing that the facility will produce significant energy savings. A request for waiver of these requirements must be submitted as a petition for declaratory order, with the appropriate filing fee for a petition for declaratory order. Applicants requesting Commission recertification as part of a request for waiver of one of these requirements should electronically submit their completed Form 556 along with their petition for declaratory order, rather than filing their Form 556 as a separate request for Commission recertification. Only the filing fee for the petition for declaratory order must be paid to cover both the waiver request and the request for recertification *if such requests are made simultaneously*.

18 C.F.R. § 292.203(d)(2) allows an applicant to request a waiver of the Form 556 filing requirements, for good cause. Applicants filing a petition for declaratory order requesting a waiver under 18 C.F.R. § 292.203(d)(2) do not need to complete or submit a Form 556 with their petition.

FERC Form 556 Page 4 - Instructions

Geographic Coordinates

If a street address does not exist for your facility, then line 3c of the Form 556 requires you to report your facility's geographic coordinates (latitude and longitude). Geographic coordinates may be obtained from several different sources. You can find links to online services that show latitude and longitude coordinates on online maps by visiting the Commission's QF webpage at www.ferc.gov/QF and clicking the Geographic Coordinates link. You may also be able to obtain your geographic coordinates from a GPS device, Google Earth (available free at http://earth.google.com), a property survey, various engineering or construction drawings, a property deed, or a municipal or county map showing property lines.

Filing Privileged Data or Critical Energy Infrastructure Information in a Form 556

The Commission's regulations provide procedures for applicants to either (1) request that any information submitted with a Form 556 be given privileged treatment because the information is exempt from the mandatory public disclosure requirements of the Freedom of Information Act, 5 U.S.C. § 552, and should be withheld from public disclosure; or (2) identify any documents containing critical energy infrastructure information (CEII) as defined in 18 C.F.R. § 388.113 that should not be made public.

If you are seeking privileged treatment or CEII status for any data in your Form 556, then you must follow the procedures in 18 C.F.R. § 388.112. See www.ferc.gov/help/filing-guide/file-ceii.asp for more information.

Among other things (see 18 C.F.R. § 388.112 for other requirements), applicants seeking privileged treatment or CEII status for data submitted in a Form 556 must prepare and file both (1) a complete version of the Form 556 (containing the privileged and/or CEII data), and (2) a public version of the Form 556 (with the privileged and/or CEII data redacted). Applicants preparing and filing these different versions of their Form 556 must indicate below the security designation of this version of their document. If you are *not* seeking privileged treatment or CEII status for any of your Form 556 data, then you should not respond to any of the items on this page.

Non-Public: Applicant is seeking privileged treatment and/or CEII status for data contained in the Form 556 lines indicated below. This non-public version of the applicant's Form 556 contains all data, including the data that is redacted in the (separate) public version of the applicant's Form 556.
 Public (redacted): Applicant is seeking privileged treatment and/or CEII status for data contained in the Form 556 lines indicated below. This public version of the applicants's Form 556 contains all data except for data from the lines indicated below, which has been redacted.
Privileged : Indicate below which lines of your form contain data for which you are seeking privileged treatment
Critical Energy Infrastructure Information (CEII): Indicate below which lines of your form contain data for which you are seeking CEII status

The eFiling process described on page 2 will allow you to identify which versions of the electronic documents you submit are public, privileged and/or CEII. The filenames for such documents should begin with "Public", "Priv", or "CEII", as applicable, to clearly indicate the security designation of the file. Both versions of the Form 556 should be unaltered PDF copies of the Form 556, as available for download from www.ferc.gov/QF. To redact data from the public copy of the submittal, simply omit the relevant data from the Form. For numerical fields, leave the redacted fields blank. For text fields, complete as much of the field as possible, and replace the redacted portions of the field with the word "REDACTED" in brackets. Be sure to identify above all fields which contain data for which you are seeking non-public status.

The Commission is not responsible for detecting or correcting filer errors, including those errors related to security designation. If your documents contain sensitive information, make sure they are filed using the proper security designation.

FEDERAL ENERGY REGULATORY COMMISSION WASHINGTON, DC

OMB Control # 1902-0075 Expiration 06/30/2019

Form 556 Certification of Qualifying Facility (QF) Status for a Small Power Production or Cogeneration Facility

1b Applicant street a 201 Isabella				
1c City		1d State/provi	ince	
Pittsburg		PA		
1e Postal code	1f Country (if not United States)		1g Telephone number	
15212-5858	cility over proviously been cortified as a O	E2 Vos \(\bar{\text{N}} \)	412 553 4237	
1h Has the instant facility ever previously been certified as a QF? Yes No 🔀				
1i If yes, provide the docket number of the last known QF filing pertaining to this facility: QF				
1j Under which certification process is the applicant making this filing?				
Notice of self-co (see note below	ertification \Box \bigcap_{fe}^{A}	pplication for Co ee; see "Filing Fee	ommission certification (requires filing e" section on page 3)	
QF status. A not notice of self-cer	elf-certification is a notice by the applicant ice of self-certification does not establish a tification to verify compliance. See the "V 3 for more information.	a proceeding, an	d the Commission does not review a	
1k What type(s) of Q	F status is the applicant seeking for its fac	ility? (check all th	nat apply)	
Qualifying sma	ll power production facility status	ualifying cogene	eration facility status	
11 What is the purpo	se and expected effective date(s) of this fi	ling?		
○ Original certifice ○ Original c	ation; facility expected to be installed by	<u>1/1/27</u> a	nd to begin operation on1/1/27	
Change(s) to a	oreviously certified facility to be effective	on		
(identify type(s) of change(s) below, and describe chang	e(s) in the Miscel	laneous section starting on page 19)	
☐ Name chan	ge and/or other administrative change(s)			
☐ Change in o	wnership			
☐ Change(s) a	ffecting plant equipment, fuel use, power	production capa	acity and/or cogeneration thermal outpu	
Supplement or o	correction to a previous filing submitted o	n		
(describe the su	pplement or correction in the Miscellaneo	ous section starti	ng on page 19)	
1m If any of the following three statements is true, check the box(es) that describe your situation and complete the form to the extent possible, explaining any special circumstances in the Miscellaneous section starting on page 19.				
The instant facility complies with the Commission's QF requirements by virtue of a waiver of certain regulations previously granted by the Commission in an order dated orders in the Miscellaneous section starting on page 19.				
	cility would comply with the Commission with this application is granted	's QF requiremer	nts if a petition for waiver submitted	
 concurrently with this application is granted The instant facility complies with the Commission's regulations, but has special circumstances, such as the employment of unique or innovative technologies not contemplated by the structure of this form, that make the demonstration of compliance via this form difficult or impossible (describe in Misc. section starting on p. 19) 				

FERC Form 556 Page 6 - All Facilities

	2a Name of contact person			2b Telephone	number	
	Nick Oliver			(412) 553	-1392	
	2c Which of the following describes t	the contact person's rela	itionship to the ap	plicant? (check o	ne)	
	Applicant (self) Emplo	oyee, owner or partner o	f applicant author	ized to represent	the applicant	
on	Employee of a company affiliate	ed with the applicant au	thorized to repres	ent the applicant	on this matter	
ati	☐ Lawyer, consultant, or other rep	• •	•			
Ĕ	2d Company or organization name (•		
for	Alcoa Inc.	ii applicant is an individ	uai, check here and	u skip to line ze)		
<u></u>						
Contact Information	2e Street address (if same as Applica	·	to line 3a)			
nta	Alcoa Corporate Center, 201 Isabella Street	6D09				
S						
	2f City	2g State/province				
	Pittsburgh		PA			
	2h Postal code	2i Country (if not Unite	d States)			
	15212					
	3a Facility name	L				
UC	High Rock					
atic	3b Street address (if a street address	does not exist for the fa	cility check here a	and skin to line 30	-1	
Ö	Street address (in a street address	ades not exist for the la	emey, effect fiere o		-/ 🔼	
Ĭ						
ntification and Location	3c Geographic coordinates: If you indicated that no street address exists for your facility by checking the box in line 3b, then you must specify the latitude and longitude coordinates of the facility in degrees (to three decimal places). Use the following formula to convert to decimal degrees from degrees, minutes and seconds: decimal degrees = degrees + (minutes/60) + (seconds/3600). See the "Geographic Coordinates" section on page 4 for help. If you provided a street address for your facility in line 3b, then specifying the geographic coordinates below is optional.					
	Longitude ☐ East (+) 80 ☐ West (-)	. 233 degrees	Latitude	North (+) South (-) ─	35.601 degrees	
Facility Ide	3d City (if unincorporated, check her	re and enter nearest city) ⊠ 3e State/p	rovince		
≝	Salisbury		North Ca	rolina		
ac	3f County (or check here for indeper	ndent city)	3g Country (if not	United States)		
ш	Davidson					
	Identify the electric utilities that are co	ontemplated to transact	with the facility.			
S	4a Identify utility interconnecting with the facility					
iţi	Duke Energy Carolinas and Duke Energy Progress					
Utilities	4b Identify utilities providing wheeling service or check here if none ✓					
ع ر	dentity utilities providing wheeli	ing service of check here	il lione			
ţi	As the of one and			· · · · · · · · · · · · · · · · · · ·		
aci	4c Identify utilities purchasing the us	setul electric power outp	out or check here i	r none ∑		
ns	 4c Identify utilities purchasing the useful electric power output or check here if none 4d Identify utilities providing supplementary power, backup power, maintenance power, and/or interruptible power sorvice or check here if none 					
Transacting	4d Identify utilities providing supple	mentary power, backup	power, maintena	nce power, and/o	or interruptible power	
	service or check here if none					

Full legal names of direct owne	holding company	If Y % eq inte
1) Alcoa Power Generating Inc.	Yes ⊠ No □	
2)		
3)	Vaa 🗆 Na 🗀	
4)	Yes No No	
5)	Yes No No	
6)	Yes No No	
7)	Yes No No	
8)	Yes	
9)	Yes	
10)	Yes No No	
5b Upstream (i.e., indirect) ownership as of effective date or of the facility that both (1) hold at least 10 percent equity defined in section 3(22) of the Federal Power Act (16 U.S. 1262(8) of the Public Utility Holding Company Act of 2005 equity interest in the facility held by such owners. (Note:	r interest in the facility, and (2) are electric utilitie C. 796(22)), or holding companies, as defined in 5 (42 U.S.C. 16451(8)). Also provide the percenta that, because upstream owners may be subsidia	ect) ow es, as section age of
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 Upstream (i.e., indirect) ownership as of effective date or of the facility that both (1) hold at least 10 percent equity defined in section 3(22) of the Federal Power Act (16 U.S. 1262(8) of the Public Utility Holding Company Act of 2005 equity interest in the facility held by such owners. (Note another, total percent equity interest reported may exceed Check here if no such upstream owners exist. Full legal names of electric utility or holding 1) Alcoa Inc. Alcoa Inc. 	operation date: Identify all upstream (i.e., indire vinterest in the facility, and (2) are electric utilitie C. 796(22)), or holding companies, as defined in 5 (42 U.S.C. 16451(8)). Also provide the percenta that, because upstream owners may be subsidial ed 100 percent.)	ect) ow es, as section age of aries of % eq inter
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5b Upstream (i.e., indirect) ownership as of effective date or of the facility that both (1) hold at least 10 percent equity defined in section 3(22) of the Federal Power Act (16 U.S. 1262(8) of the Public Utility Holding Company Act of 2003 equity interest in the facility held by such owners. (Note another, total percent equity interest reported may exceed Check here if no such upstream owners exist. Full legal names of electric utility or holding 1) Alcoa Inc. 2) 3) 4) 5)	operation date: Identify all upstream (i.e., indire vinterest in the facility, and (2) are electric utilitie C. 796(22)), or holding companies, as defined in 5 (42 U.S.C. 16451(8)). Also provide the percenta that, because upstream owners may be subsidial ed 100 percent.)	ect) ow es, as sectior age of
5b Upstream (i.e., indirect) ownership as of effective date or of the facility that both (1) hold at least 10 percent equity defined in section 3(22) of the Federal Power Act (16 U.S. 1262(8) of the Public Utility Holding Company Act of 200: equity interest in the facility held by such owners. (Note another, total percent equity interest reported may exceed Check here if no such upstream owners exist. Full legal names of electric utility or holding 1) Alcoa Inc. 2) 3) 4) 5) 6)	operation date: Identify all upstream (i.e., indire vinterest in the facility, and (2) are electric utilitie C. 796(22)), or holding companies, as defined in 5 (42 U.S.C. 16451(8)). Also provide the percenta that, because upstream owners may be subsidial ed 100 percent.)	ect) ow es, as section age of aries of % eq inter

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	6a	Describe th	e primary energy input: (ch	eck one ma	in c	ategory and, if applicable	, one subc	ategory)	
		Biomas	s (specify)	⊠ Re	enev	vable resources (specify)	☐ Ge	eothermal	
		L	andfill gas		\boxtimes	Hydro power - river	Fc	ossil fuel (spec	fy)
		□ N	lanure digester gas			Hydro power - tidal		☐ Coal (not	waste)
		□ N	lunicipal solid waste			Hydro power - wave		☐ Fuel oil/di	esel
		□ See	ewage digester gas			Solar - photovoltaic		☐ Natural ga	s (not waste)
		□ W	/ood			Solar - thermal		Other foss	
		□ 0	ther biomass (describe on	page 19)		Wind		□ (describe	on page 19)
		☐ Waste (specify type below in line 6	b)		Other renewable resourd (describe on page 19)	e 🗌 Ot	ther (describe	on page 19)
	6b	If you spec	ified "waste" as the primary	energy inpu	ut in	line 6a, indicate the type	of waste f	fuel used: (che	ck one)
		☐ Waste	fuel listed in 18 C.F.R. § 29	2.202(b) (spe	ecify	one of the following)			
	☐ Anthracite culm produced prior to July 23, 1985								
			Anthracite refuse that has a ash content of 45 percent of		neat	content of 6,000 Btu or le	ess per poi	und and has a	n average
			Bituminous coal refuse tha average ash content of 25				u per pou	nd or less and	has an
nput	Top or bottom subbituminous coal produced on Federal lands or on Indian lands that has l								anagement ovided that
Energy Input	Coal refuse produced on Federal lands or on Indian lands that has been determined to be w BLM or that is located on non- Federal or non-Indian lands outside of BLM's jurisdiction, pro applicant shows that the latter is an extension of that determined by BLM to be waste								
ш	Lignite produced in association with the production of montan wax and lignite that becomes exposed as a result of such a mining operation							es exposed	
			Gaseous fuels (except natu	ral gas and	synt	hetic gas from coal) (des	cribe on pa	age 19)	
	Waste natural gas from gas or oil wells (describe on page 19 how the gas meets the □ C.F.R. § 2.400 for waste natural gas; include with your filing any materials necessary t compliance with 18 C.F.R. § 2.400)							•	
			mbustion	ustion (describe on page 19)					
			Heat from exothermic reac	tions (descr	ibe	on page 19)	Residual	heat (describe	on page 19)
			Used rubber tires] Plastic ma	teri	als Refinery	off-gas	☐ Petro	oleum coke
	Other waste energy input that has little or no commercial value and exists in the absence of the qualification of the facility industry (describe in the Miscellaneous section starting on page 19; include a discussion of the lack of commercial value and existence in the absence of the qualifying facility industry)								
	6c Provide the average energy input, calculated on a calendar year basis, in terms of Btu/h for the following fossil energy inputs, and provide the related percentage of the total average annual energy input to the facility (18 292.202(j)). For any oil or natural gas fuel, use lower heating value (18 C.F.R. § 292.202(m)).								
			Fuel			average energy or specified fuel		age of total energy input	
			Natural gas			0 Btu/h		0 %	
			Oil-based fuels			0 Btu/h		0 %	
			Coal			0 Btu/h		0 %	

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Indicate the maximum gross and maximum net electric power production capacity of the facility at the point(s) of delivery by completing the worksheet below. Respond to all items. If any of the parasitic loads and/or losses identified in lines 7b through 7e are negligible, enter zero for those lines.

7a The maximum gross power production capacity at the terminals of the individual generator(s) under the most favorable anticipated design conditions	34,500 kW
7b Parasitic station power used at the facility to run equipment which is necessary and integral to the power production process (boiler feed pumps, fans/blowers, office or maintenance buildings directly related to the operation of the power generating facility, etc.). If this facility includes non-power production processes (for instance, power consumed by a cogeneration facility's thermal host), do not include any power consumed by the non-power production activities in your	34,500 KW
reported parasitic station power.	3.7 kW
7c Electrical losses in interconnection transformers	0 kW
7d Electrical losses in AC/DC conversion equipment, if any	0 kW
7e Other interconnection losses in power lines or facilities (other than transformers and AC/DC conversion equipment) between the terminals of the generator(s) and the point of interconnection with the utility.	o kW
with the utility 7f Total deductions from gross power production capacity = 7b + 7c + 7d + 7e	U KVV
71 Total deductions from gross power production capacity = 75 + 76 + 76 + 76	3.7 kW
7g Maximum net power production capacity = 7a - 7f	
	34,496.3 kW

7h Description of facility and primary components: Describe the facility and its operation. Identify all boilers, heat recovery steam generators, prime movers (any mechanical equipment driving an electric generator), electrical generators, photovoltaic solar equipment, fuel cell equipment and/or other primary power generation equipment used in the facility. Descriptions of components should include (as applicable) specifications of the nominal capacities for mechanical output, electrical output, or steam generation of the identified equipment. For each piece of equipment identified, clearly indicate how many pieces of that type of equipment are included in the plant, and which components are normally operating or normally in standby mode. Provide a description of how the components operate as a system. Applicants for cogeneration facilities do not need to describe operations of systems that are clearly depicted on and easily understandable from a cogeneration facility's attached mass and heat balance diagram; however, such applicants should provide any necessary description needed to understand the sequential operation of the facility depicted in their mass and heat balance diagram. If additional space is needed, continue in the Miscellaneous section starting on page 19.

High Rock Dam is a concrete gravity structure. The dam is comprised of two short non- overflow sections, a Stoney gate-controlled spillway section, and an integral intake/powerhouse section.

The non-overflow sections are located at the east end of the powerhouse and at the west end of the gate-controlled spillway. The gate-controlled spillway section includes ten Stoney gates that release surplus water during flood events. The spillway gates are operated locally at the site by fixed individual electrically powered hoists.

The High Rock powerhouse and intake form a single structural unit integral with the dam. It consists of a concrete substructure containing three water passages and a brick superstructure. The intake structure includes trashracks and six headgates.

The High Rock powerhouse contains three 10,970 kilowatt (kW) vertical Francis turbines, each operating under a net head of 55.0 ft, direct-connected to generators having a total capacity of 41,250 kW (Units 1, 2, and 3 @ 13,750 kW), for a total installed capacity of 32,190 kW as limited by the turbines1. The High Rock Development has a total hydraulic capacity of 10,050 cfs.



Information Required for Small Power Production Facility

If you indicated in line 1k that you are seeking qualifying small power production facility status for your facility, then you

must respond to the items on this page. Otherwise, skip page 10.			
	Pursuant to 18 C.F.R. § 292.204(a), the power production capacity of any small power production with the power production capacity of any other small power production facilities that use the resource, are owned by the same person(s) or its affiliates, and are located at the same site, may megawatts. To demonstrate compliance with this size limitation, or to demonstrate that your from this size limitation under the Solar, Wind, Waste, and Geothermal Power Production Incest (Pub. L. 101-575, 104 Stat. 2834 (1990) as amended by Pub. L. 102-46, 105 Stat. 249 (1991)), respectively.	e same energy ny not exceed 80 facility is exempt ntives Act of 1990	
	8a Identify any facilities with electrical generating equipment located within 1 mile of the ele equipment of the instant facility, and for which any of the entities identified in lines 5a or 5b, of at least a 5 percent equity interest.	5 1	
Ce	Check here if no such facilities exist.		
of Complian Limitations	Facility location Root docket # (city or county, state) (if any) Common owner(s)	Maximum net power production capacity	
ati	1) QF -	kW	
Zi Ci		kW	
to to	3) QF -	kW	
tification with Size	Check here and continue in the Miscellaneous section starting on page 19 if additional sp	ace is needed	
Certification of Compliance with Size Limitations	8b The Solar, Wind, Waste, and Geothermal Power Production Incentives Act of 1990 (Incentive exemption from the size limitations in 18 C.F.R. § 292.204(a) for certain facilities that were certical Are you seeking exemption from the size limitations in 18 C.F.R. § 292.204(a) by virtue of the Interval	ified prior to 1995.	
	8c Was the original notice of self-certification or application for Commission certification of the before December 31, 1994? Yes No	ne facility filed on or	
	8d Did construction of the facility commence on or before December 31, 1999? Yes No)	
	8e If you answered No in line 8d, indicate whether reasonable diligence was exercised toward the facility, taking into account all factors relevant to construction? Yes No If you are a brief narrative explanation in the Miscellaneous section starting on page 19 of the construction particular, describe why construction started so long after the facility was certified) and the dil toward completion of the facility.	nswered Yes, provide ion timeline (in	
ertification of Compliance th Fuel Use Requirements	Pursuant to 18 C.F.R. § 292.204(b), qualifying small power production facilities may use fossil fu amounts, for only the following purposes: ignition; start-up; testing; flame stabilization; controprevention of unanticipated equipment outages; and alleviation or prevention of emergencies the public health, safety, or welfare, which would result from electric power outages. The amoused for these purposes may not exceed 25 percent of the total energy input of the facility durperiod beginning with the date the facility first produces electric energy or any calendar year to	ol use; alleviation or s, directly affecting ount of fossil fuels ring the 12-month	
ot C e Rei	9a Certification of compliance with 18 C.F.R. § 292.204(b) with respect to uses of fossil fuel:		
ion Us	Applicant certifies that the facility will use fossil fuels <i>exclusively</i> for the purposes listed	above.	
cat Jel	9b Certification of compliance with 18 C.F.R. § 292.204(b) with respect to amount of fossil fuel	used annually:	
rtifi th Fu	Applicant certifies that the amount of fossil fuel used at the facility will not, in aggregation percent of the total energy input of the facility during the 12-month period beginning		

facility first produces electric energy or any calendar year thereafter.

Information Required for Cogeneration Facility

If you indicated in line 1k that you are seeking qualifying cogeneration facility status for your facility, then you must respond to the items on pages 11 through 13. Otherwise, skip pages 11 through 13.

	energy (such as heat or suse of energy. Pursuant cycle cogeneration facilithermal application or pursuant cycle.	22.202(c), a cogeneration facility produces electric energy and forms of useful thermal steam) used for industrial, commercial, heating, or cooling purposes, through the sequential to 18 C.F.R. § 292.202(s), "sequential use" of energy means the following: (1) for a toppingty, the use of reject heat from a power production process in sufficient amounts in a process to conform to the requirements of the operating standard contained in 18 C.F.R. § obttoming-cycle cogeneration facility, the use of at least some reject heat from a thermal or power production.
		eneration technology does the facility represent? (check all that apply)
	I opping-cycle	e cogeneration Bottoming-cycle cogeneration
	other requirements balance diagram de meet certain requir	te the sequential operation of the cogeneration process, and to support compliance with such as the operating and efficiency standards, include with your filing a mass and heat epicting average annual operating conditions. This diagram must include certain items and ements, as described below. You must check next to the description of each requirement it you have complied with these requirements.
	Check to certify compliance with	
	indicated requirement	Requirement
ration n		Diagram must show orientation within system piping and/or ducts of all prime movers, heat recovery steam generators, boilers, electric generators, and condensers (as applicable), as well as any other primary equipment relevant to the cogeneration process.
gene natio		Any average annual values required to be reported in lines 10b, 12a, 13a, 13b, 13d, 13f, 14a, 15b, 15d and/or 15f must be computed over the anticipated hours of operation.
General Cogeneration Information		Diagram must specify all fuel inputs by fuel type and average annual rate in Btu/h. Fuel for supplementary firing should be specified separately and clearly labeled. All specifications of fuel inputs should use lower heating values.
jen(Diagram must specify average gross electric output in kW or MW for each generator.
O		Diagram must specify average mechanical output (that is, any mechanical energy taken off of the shaft of the prime movers for purposes not directly related to electric power generation) in horsepower, if any. Typically, a cogeneration facility has no mechanical output.
		At each point for which working fluid flow conditions are required to be specified (see below), such flow condition data must include mass flow rate (in lb/h or kg/s), temperature (in °F, R, °C or K), absolute pressure (in psia or kPa) and enthalpy (in Btu/lb or kJ/kg). Exception: For systems where the working fluid is <i>liquid only</i> (no vapor at any point in the cycle) and where the type of liquid and specific heat of that liquid are clearly indicated on the diagram or in the Miscellaneous section starting on page 19, only mass flow rate and temperature (not pressure and enthalpy) need be specified. For reference, specific heat at standard conditions for pure liquid water is approximately 1.002 Btu/ (lb*R) or 4.195 kJ/(kg*K).
		Diagram must specify working fluid flow conditions at input to and output from each steam turbine or other expansion turbine or back-pressure turbine.
		Diagram must specify working fluid flow conditions at delivery to and return from each thermal application.
		Diagram must specify working fluid flow conditions at make-up water inputs.

	EPAct 2005 cogeneration facilities: The Energy Policy Act of 2005 (EPAct 2005) established a new section 210(n) of the Public Utility Regulatory Policies Act of 1978 (PURPA), 16 USC 824a-3(n), with additional requirements for any qualifying cogeneration facility that (1) is seeking to sell electric energy pursuant to section 210 of PURPA and (2) was either not a cogeneration facility on August 8, 2005, or had not filed a self-certification or application for Commission certification of QF status on or before February 1, 2006. These requirements were implemented by the Commission in 18 C.F.R. § 292.205(d). Complete the lines below, carefully following the instructions, to demonstrate whether these additional requirements apply to your cogeneration facility and, if so, whether your facility complies with such requirements.		
	11a Was your facility operating as a qualifying cogeneration facility on or before August 8, 2005? Yes No		
	11b Was the initial filing seeking certification of your facility (whether a notice of self-certification or an application for Commission certification) filed on or before February 1, 2006? Yes No		
ט ע	If the answer to either line 11a or 11b is Yes, then continue at line 11c below. Otherwise, if the answers to both lines 11a and 11b are No, skip to line 11e below.		
Facilities	11c With respect to the design and operation of the facility, have any changes been implemented on or after February 2, 2006 that affect general plant operation, affect use of thermal output, and/or increase net power production capacity from the plant's capacity on February 1, 2006?	•	
	Yes (continue at line 11d below)		
Cogeneration	No. Your facility is not subject to the requirements of 18 C.F.R. § 292.205(d) at this time. However, it may be subject to to these requirements in the future if changes are made to the facility. At such time, the applicant would need to recertify the facility to determine eligibility. Skip lines 11d through 11j.		
oger	11d Does the applicant contend that the changes identified in line 11c are not so significant as to make the facility a "new" cogeneration facility that would be subject to the 18 C.F.R. § 292.205(d) cogeneration requirements?	-	
rom C	Yes. Provide in the Miscellaneous section starting on page 19 a description of any relevant changes made to the facility (including the purpose of the changes) and a discussion of why the facility should not be considered a "new" cogeneration facility in light of these changes. Skip lines 11e through 11j.		
ergy Output from Cogeneration Facilities	No. Applicant stipulates to the fact that it is a "new" cogeneration facility (for purposes of determining the applicability of the requirements of 18 C.F.R. § 292.205(d)) by virtue of modifications to the facility that were initiated on or after February 2, 2006. Continue below at line 11e.		
	11e Will electric energy from the facility be sold pursuant to section 210 of PURPA?	į	
W	Yes. The facility is an EPAct 2005 cogeneration facility. You must demonstrate compliance with 18 C.F.R. § 292.205(d)(2) by continuing at line 11f below.		
of En	No. Applicant certifies that energy will <i>not</i> be sold pursuant to section 210 of PURPA. Applicant also certifies its understanding that it must recertify its facility in order to determine compliance with the requirements of 18 C.F.R. § 292.205(d) <i>before</i> selling energy pursuant to section 210 of PURPA in the future. Skip lines 11f through 11j.		
	11f Is the net power production capacity of your cogeneration facility, as indicated in line 7g above, less than or equal to 5,000 kW?	į	
	Yes, the net power production capacity is less than or equal to 5,000 kW. 18 C.F.R. § 292.205(d)(4) provides a rebuttable presumption that cogeneration facilities of 5,000 kW and smaller capacity comply with the requirements for fundamental use of the facility's energy output in 18 C.F.R. § 292.205(d)(2). Applicant certifies its understanding that, should the power production capacity of the facility increase above 5,000 kW, then the facility must be recertified to (among other things) demonstrate compliance with 18 C.F.R. § 292.205(d)(2). Skip lines 11g through 11j.		
	No, the net power production capacity is greater than 5,000 kW. Demonstrate compliance with the requirements for fundamental use of the facility's energy output in 18 C.F.R. § 292.205(d)(2) by continuing on the next page at line 11g.		

Lines 11g through 11k below guide the applicant through the process of demonstrating compliance with the requirements for "fundamental use" of the facility's energy output. 18 C.F.R. § 292.205(d)(2). Only respond to the lines on this page if the instructions on the previous page direct you to do so. Otherwise, skip this page.

18 C.F.R. § 292.205(d)(2) requires that the electrical, thermal, chemical and mechanical output of an EPAct 2005 cogeneration facility is used fundamentally for industrial, commercial, residential or institutional purposes and is not intended fundamentally for sale to an electric utility, taking into account technological, efficiency, economic, and variable thermal energy requirements, as well as state laws applicable to sales of electric energy from a qualifying facility to its host facility. If you were directed on the previous page to respond to the items on this page, then your facility is an EPAct 2005 cogeneration facility that is subject to this "fundamental use" requirement.

The Commission's regulations provide a two-pronged approach to demonstrating compliance with the requirements for fundamental use of the facility's energy output. First, the Commission has established in 18 C.F.R. § 292.205(d)(3) a "fundamental use test" that can be used to demonstrate compliance with 18 C.F.R. § 292.205(d)(2). Under the fundamental use test, a facility is considered to comply with 18 C.F.R. § 292.205(d)(2) if at least 50 percent of the facility's total annual energy output (including electrical, thermal, chemical and mechanical energy output) is used for industrial, commercial, residential or institutional purposes.

Second, an applicant for a facility that does not pass the fundamental use test may provide a narrative explanation of and support for its contention that the facility nonetheless meets the requirement that the electrical, thermal, chemical and mechanical output of an EPAct 2005 cogeneration facility is used fundamentally for industrial, commercial, residential or institutional purposes and is not intended fundamentally for sale to an electric utility, taking into account technological, efficiency, economic, and variable thermal energy requirements, as well as state laws applicable to sales of electric energy from a qualifying facility to its host facility.

Complete lines 11g through 11j below to determine compliance with the fundamental use test in 18 C.F.R. § 292.205(d)(3). Complete lines 11g through 11j even if you do not intend to rely upon the fundamental use test to demonstrate compliance with 18 C.F.R. § 292.205(d)(2).

11g Amount of electrical, thermal, chemical and mechanical energy output (net of internal	
generation plant losses and parasitic loads) expected to be used annually for industrial,	
commercial, residential or institutional purposes and not sold to an electric utility	MWh
11h Total amount of electrical, thermal, chemical and mechanical energy expected to be	
sold to an electric utility	MWh
11i Percentage of total annual energy output expected to be used for industrial,	
commercial, residential or institutional purposes and not sold to a utility	
= 100 * 11g /(11g + 11h)	0 %

11j Is the response in line 11i greater than or equal to 50 percent?

Yes. Your facility complies with 18 C.F.R. § 292.205(d)(2) by virtue of passing the fundamental use test provided in 18 C.F.R. § 292.205(d)(3). Applicant certifies its understanding that, if it is to rely upon passing the fundamental use test as a basis for complying with 18 C.F.R. § 292.205(d)(2), then the facility must comply with the fundamental use test both in the 12-month period beginning with the date the facility first produces electric energy, and in all subsequent calendar years.

No. Your facility does not pass the fundamental use test. Instead, you must provide in the Miscellaneous section starting on page 19 a narrative explanation of and support for why your facility meets the requirement that the electrical, thermal, chemical and mechanical output of an EPAct 2005 cogeneration facility is used fundamentally for industrial, commercial, residential or institutional purposes and is not intended fundamentally for sale to an electric utility, taking into account technological, efficiency, economic, and variable thermal energy requirements, as well as state laws applicable to sales of electric energy from a QF to its host facility. Applicants providing a narrative explanation of why their facility should be found to comply with 18 C.F.R. § 292.205(d)(2) in spite of non-compliance with the fundamental use test may want to review paragraphs 47 through 61 of Order No. 671 (accessible from the Commission's QF website at www.ferc.gov/QF), which provide discussion of the facts and circumstances that may support their explanation. Applicant should also note that the percentage reported above will establish the standard that that facility must comply with, both for the 12-month period beginning with the date the facility first produces electric energy, and in all subsequent calendar years. See Order No. 671 at paragraph 51. As such, the applicant should make sure that it reports appropriate values on lines 11g and 11h above to serve as the

relevant annual standard, taking into account expected variations in production conditions.

Btu/h

6)

Information Required for Topping-Cycle Cogeneration Facility

If you indicated in line 10a that your facility represents topping-cycle cogeneration technology, then you must respond to the items on pages 14 and 15. Otherwise, skip pages 14 and 15.

The thermal energy output of a topping-cycle cogeneration facility is the net energy made available to an industrial
or commercial process or used in a heating or cooling application. Pursuant to sections 292.202(c), (d) and (h) of the
Commission's regulations (18 C.F.R. §§ 292.202(c), (d) and (h)), the thermal energy output of a qualifying topping-
cycle cogeneration facility must be useful. In connection with this requirement, describe the thermal output of the
topping-cycle cogeneration facility by responding to lines 12a and 12b below.

	Name of entity (thermal host) taking thermal output	Thermal host's relationship to facility; Thermal host's use of thermal output	Average annual rate of thermal output attributable to use (net of heat contained in process return or make-up water)
1)		Select thermal host's relationship to facility	
1)		Select thermal host's use of thermal output	Btu/h
2)		Select thermal host's relationship to facility	
۷)		Select thermal host's use of thermal output	Btu/h
3)		Select thermal host's relationship to facility	
3)		Select thermal host's use of thermal output	Btu/h
4)		Select thermal host's relationship to facility	
4)		Select thermal host's use of thermal output	Btu/h
5)		Select thermal host's relationship to facility	
(د		Select thermal host's use of thermal output	Btu/h
	1	<u> </u>	1

12b Demonstration of usefulness of thermal output: At a minimum, provide a brief description of each use of the thermal output identified above. In some cases, this brief description is sufficient to demonstrate usefulness. However, if your facility's use of thermal output is not common, and/or if the usefulness of such thermal output is not reasonably clear, then you must provide additional details as necessary to demonstrate usefulness. Your application may be rejected and/or additional information may be required if an insufficient showing of usefulness is made. (Exception: If you have previously received a Commission certification approving a specific use of thermal output related to the instant facility, then you need only provide a brief description of that use and a reference by date and docket number to the order certifying your facility with the indicated use. Such exemption may not be used if any change creates a material deviation from the previously authorized use.) If additional space is needed, continue in the Miscellaneous section starting on page 19.

Select thermal host's relationship to facility

Select thermal host's use of thermal output

Check here and continue in the Miscellaneous section starting on page 19 if additional space is needed

Applicants for facilities representing topping-cycle technology must demonstrate compliance with the topping-cycle operating standard and, if applicable, efficiency standard. Section 292.205(a)(1) of the Commission's regulations (18 C.F.R. § 292.205(a)(1)) establishes the operating standard for topping-cycle cogeneration facilities:
the useful thermal energy output must be no less than 5 percent of the total energy output. Section 292.205(a)(2)
(18 C.F.R. § 292.205(a)(2)) establishes the efficiency standard for topping-cycle cogeneration facilities for which
installation commenced on or after March 13, 1980: the useful power output of the facility plus one-half the useful
thermal energy output must (A) be no less than 42.5 percent of the total energy input of natural gas and oil to the
facility; and (B) if the useful thermal energy output is less than 15 percent of the total energy output of the facility,
be no less than 45 percent of the total energy input of natural gas and oil to the facility. To demonstrate
compliance with the topping-cycle operating and/or efficiency standards, or to demonstrate that your facility is
exempt from the efficiency standard based on the date that installation commenced, respond to lines 13a through
13l below.

If you indicated in line 10a that your facility represents *both* topping-cycle and bottoming-cycle cogeneration technology, then respond to lines 13a through 13l below considering only the energy inputs and outputs attributable to the topping-cycle portion of your facility. Your mass and heat balance diagram must make clear which mass and energy flow values and system components are for which portion (topping or bottoming) of the cogeneration system.

13a Indicate the annual average rate of useful thermal energy output made available		
to the host(s), net of any heat contained in condensate return or make-up water	Btu/h	
13b Indicate the annual average rate of net electrical energy output		
	kW	
13c Multiply line 13b by 3,412 to convert from kW to Btu/h		
	0 Btu/h	
13d Indicate the annual average rate of mechanical energy output taken directly off		
of the shaft of a prime mover for purposes not directly related to power production		
(this value is usually zero)	hp	
13e Multiply line 13d by 2,544 to convert from hp to Btu/h	·	
	0 Btu/h	
13f Indicate the annual average rate of energy input from natural gas and oil		
,	Btu/h	
13g Topping-cycle operating value = 100 * 13a / (13a + 13c + 13e)	Dedyff	
Topping eyere operating talde 100 1507 (150 1 150 1 150)	0 %	
13h Topping-cycle efficiency value = 100 * (0.5*13a + 13c + 13e) / 13f	0 70	
Topping eyele emeleney value 100 (old 150 1 150 1 150), 151	0 %	
13i Compliance with operating standard: Is the operating value shown in line 13g gr		
131 Compliance with operating standard. Is the operating value shown in line 139 gr	eater than or equal to 3%:	
Yes (complies with operating standard) No (does not comply w	ith operating standard)	
13j Did installation of the facility in its current form commence on or after March 13, 1980?		
Vac. Your facility is subject to the officiency requirements of 10 CER & 202 205(a)(2). Demonstrate		
Yes. Your facility is subject to the efficiency requirements of 18 C.F.R. § 292.205(a)(2). Demonstrate		
compliance with the efficiency requirement by responding to line 13k or 13l, as applicable, below.		
No. Your facility is exempt from the efficiency standard. Skip lines 13k and 13l.		
13k Compliance with efficiency standard (for low operating value): If the operating value shown in line 13g is less		
than 15%, then indicate below whether the efficiency value shown in line 13h greater	than or equal to 45%:	
Yes (complies with efficiency standard) No (does not comply w	ith efficiency standard)	
13l Compliance with efficiency standard (for high operating value): If the operating value shown in line 13g is greater than or equal to 15%, then indicate below whether the efficiency value shown in line 13h is greater than or equal to 42.5%:		
Yes (complies with efficiency standard) No (does not comply w	ith efficiency standard)	

Information Required for Bottoming-Cycle Cogeneration Facility

If you indicated in line 10a that your facility represents bottoming-cycle cogeneration technology, then you must respond to the items on pages 16 and 17. Otherwise, skip pages 16 and 17.

14a		mal host and each bottoming-cycle cogeneration protection of the ottoming-cycle cogeneration processes, provide the	e data for each process in
	Name of entity (thermal host) performing the process from which at least some of the reject heat is used for power production	Thermal host's relationship to facility; Thermal host's process type	Has the energy input to the thermal host been augmented for purposes of increasing power production capacity? (if Yes, describe on p. 19)
1)		Select thermal host's relationship to facility	Yes No
1)		Select thermal host's process type	
2)		Select thermal host's relationship to facility	Yes No
2)		Select thermal host's process type	
2)		Select thermal host's relationship to facility	Yes No
3)		Select thermal host's process type	
			. !
ider	Demonstration of usefulness of atified above. In some cases, this	the Miscellaneous section starting on page 19 if adding the first thermal output: At a minimum, provide a brief destroyer brief description is sufficient to demonstrate useful	cription of each process ness. However, if your
ider facil mus add prev facil to tl	Demonstration of usefulness of ntified above. In some cases, this lity's process is not common, and it provide additional details as ne itional information may be requiviously received a Commission cellity, then you need only provide ane order certifying your facility we	he Miscellaneous section starting on page 19 if addi	cription of each process ness. However, if your easonably clear, then you on may be rejected and/or (Exception: If you have ocess related to the instant y date and docket number be used if any material

OFFICIAL COPY

Applicants for facilities representing bottoming-cycle technology and for which installation commenced on or after March 13, 1990 must demonstrate compliance with the bottoming-cycle efficiency standards. Section 292.205(b) of the Commission's regulations (18 C.F.R. § 292.205(b)) establishes the efficiency standard for bottoming-cycle cogeneration facilities: the useful power output of the facility must be no less than 45 percent of the energy input of natural gas and oil for supplementary firing. To demonstrate compliance with the bottoming-cycle efficiency standard (if applicable), or to demonstrate that your facility is exempt from this standard based on the date that installation of the facility began, respond to lines 15a through 15h below.

If you indicated in line 10a that your facility represents *both* topping-cycle and bottoming-cycle cogeneration technology, then respond to lines 15a through 15h below considering only the energy inputs and outputs attributable to the bottoming-cycle portion of your facility. Your mass and heat balance diagram must make clear which mass and energy flow values and system components are for which portion of the cogeneration system (topping or bottoming).

(topping or bottoming).	
15a Did installation of the facility in its current form commence on or after March 13,	1980?
Yes. Your facility is subject to the efficiency requirement of 18 C.F.R. § 292.205 with the efficiency requirement by responding to lines 15b through 15h below	-
No. Your facility is exempt from the efficiency standard. Skip the rest of page	17.
15b Indicate the annual average rate of net electrical energy output	kW
15c Multiply line 15b by 3,412 to convert from kW to Btu/h	0 Btu/h
15d Indicate the annual average rate of mechanical energy output taken directly off of the shaft of a prime mover for purposes not directly related to power production (this value is usually zero)	hp
15e Multiply line 15d by 2,544 to convert from hp to Btu/h	n Btu/h
15f Indicate the annual average rate of supplementary energy input from natural gas or oil	Btu/h
15g Bottoming-cycle efficiency value = 100 * (15c + 15e) / 15f	0 %
15h Compliance with efficiency standard: Indicate below whether the efficiency value than or equal to 45%:	e shown in line 15g is greater
Yes (complies with efficiency standard) No (does not comply wi	th efficiency standard)

FERC Form 556 Page 18 - All Facilities

Certificate of Completeness, Accuracy and Authority

Applicant must certify compliance with and understanding of filing requirements by checking next to each item below and signing at the bottom of this section. Forms with incomplete Certificates of Completeness, Accuracy and Authority will be rejected by the Secretary of the Commission.

Signer identified below certifies the following: (check all items and applicable subitems)

signer identified below certifies the follow	ving. (Check all items and applicable subitems)	
<u> </u>	g any information contained in any attached do d any information contained in the Miscellaneou	
\bowtie He or she has provided all of the requ to the best of his or her knowledge an	ired information for certification, and the provind belief.	ded information is true as stated,
He or she possess full power and auth Practice and Procedure (18 C.F.R. § 38	nority to sign the filing; as required by Rule 2005 35.2005(a)(3)), he or she is one of the following:	5(a)(3) of the Commission's Rules of (check one)
☐ The person on whose behalf t	the filing is made	
$\ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ $	trust, association, or other organized group on	behalf of which the filing is made
\Box An officer, agent, or employe filing is made	of the governmental authority, agency, or instr	umentality on behalf of which the
A representative qualified to practice and Procedure (18 C.	practice before the Commission under Rule 210 F.R. § 385.2101) and who possesses authority to	of the Commission's Rules of o sign
He or she has reviewed all automatic Miscellaneous section starting on page	calculations and agrees with their results, unles ge 19.	ss otherwise noted in the
interconnect and transact (see lines 4 facility and those utilities reside. See page 3 for more information. Provide your signature, address and signa Procedure (18 C.F.R. § 385.2005(c)) provide	Form 556 and all attachments to the utilities what through 4d), as well as to the regulatory auth the Required Notice to Public Utilities and State ture date below. Rule 2005(c) of the Commission es that persons filing their documents electronical documents. A person filing this document ded below.	orities of the states in which the e Regulatory Authorities section on on's Rules of Practice and ically may use typed characters
Your Signature	Your address	Date
David R. Poe	2001 M Street, NW, Suite 900 Washington, DC 20036-3310	9/28/2016
Audit Notes		
Commission Staff Use Only:]

Page 19 - All Facilities

Use this space to provide any information for which there was not sufficient space in the previous sections of the form to provide. For each such item of information clearly identify the line number that the information belongs to. You may also use this space to provide any additional information you believe is relevant to the certification of your facility.

Your response below is not limited to one page. Additional page(s) will automatically be inserted into this form if the length of your response exceeds the space on this page. Use as many pages as you require.

Line 11)

01/01/1927

FEDERAL ENERGY REGULATORY COMMISSION WASHINGTON, DC

OMB Control # 1902-0075 Expiration 06/30/2019

Form 556 Certification of Qualifying Facility (QF) Status for a Small Power Production or Cogeneration Facility

General

Questions about completing this form should be sent to Form556@ferc.gov. Information about the Commission's QF program, answers to frequently asked questions about QF requirements or completing this form, and contact information for QF program staff are available at the Commission's QF website, www.ferc.gov/QF. The Commission's QF website also provides links to the Commission's QF regulations (18 C.F.R. § 131.80 and Part 292), as well as other statutes and orders pertaining to the Commission's QF program.

Who Must File

Any applicant seeking QF status or recertification of QF status for a generating facility with a net power production capacity (as determined in lines 7a through 7g below) greater than 1000 kW must file a self-certification or an application for Commission certification of QF status, which includes a properly completed Form 556. Any applicant seeking QF status for a generating facility with a net power production capacity 1000 kW or less is exempt from the certification requirement, and is therefore not required to complete or file a Form 556. See 18 C.F.R. § 292.203.

How to Complete the Form 556

This form is intended to be completed by responding to the items in the order they are presented, according to the instructions given. If you need to back-track, you may need to clear certain responses before you will be allowed to change other responses made previously in the form. If you experience problems, click on the nearest help button () for assistance, or contact Commission staff at Form556@ferc.gov.

Certain lines in this form will be automatically calculated based on responses to previous lines, with the relevant formulas shown. You must respond to all of the previous lines within a section before the results of an automatically calculated field will be displayed. If you disagree with the results of any automatic calculation on this form, contact Commission staff at Form556@ferc.gov to discuss the discrepancy before filing.

You must complete all lines in this form unless instructed otherwise. Do not alter this form or save this form in a different format. Incomplete or altered forms, or forms saved in formats other than PDF, will be rejected.

How to File a Completed Form 556

Applicants are required to file their Form 556 electronically through the Commission's eFiling website (see instructions on page 2). By filing electronically, you will reduce your filing burden, save paper resources, save postage or courier charges, help keep Commission expenses to a minimum, and receive a much faster confirmation (via an email containing the docket number assigned to your facility) that the Commission has received your filing.

If you are simultaneously filing both a waiver request and a Form 556 as part of an application for Commission certification, see the "Waiver Requests" section on page 3 for more information on how to file.

Paperwork Reduction Act Notice

This form is approved by the Office of Management and Budget. Compliance with the information requirements established by the FERC Form No. 556 is required to obtain or maintain status as a QF. See 18 C.F.R. § 131.80 and Part 292. An agency may not conduct or sponsor, and a person is not required to respond to, a collection of information unless it displays a currently valid OMB control number. The estimated burden for completing the FERC Form No. 556, including gathering and reporting information, is as follows: 3 hours for self-certification of a small power production facility, 8 hours for self-certifications of a cogeneration facility, 6 hours for an application for Commission certification of a small power production facility, and 50 hours for an application for Commission certification of a cogeneration facility. Send comments regarding this burden estimate or any aspect of this collection of information, including suggestions for reducing this burden, to the following: Information Clearance Officer, Office of the Executive Director (ED-32), Federal Energy Regulatory Commission, 888 First Street N.E., Washington, DC 20426 (DataClearance@ferc.gov); and Desk Officer for FERC, Office of Information and Regulatory Affairs, Office of Management and Budget, Washington, DC 20503 (oira_submission@omb.eop.gov). Include the Control No. 1902-0075 in any correspondence.

FERC Form 556 Page 2 - Instructions

Electronic Filing (eFiling)

To electronically file your Form 556, visit the Commission's QF website at www.ferc.gov/QF and click the eFiling link.

If you are eFiling your first document, you will need to register with your name, email address, mailing address, and phone number. If you are registering on behalf of an employer, then you will also need to provide the employer name, alternate contact name, alternate contact phone number and and alternate contact email.

Once you are registered, log in to eFiling with your registered email address and the password that you created at registration. Follow the instructions. When prompted, select one of the following QF-related filing types, as appropriate, from the Electric or General filing category.

Filing category	Filing Type as listed in eFiling	Description
	(Fee) Application for Commission Cert. as Cogeneration QF	Use to submit an application for Commission certification or Commission recertification of a cogeneration facility as a QF.
	(Fee) Application for Commission Cert. as Small Power QF	Use to submit an application for Commission certification or Commission recertification of a small power production facility as a QF.
	Self-Certification Notice (QF, EG, FC)	Use to submit a notice of self- certification of your facility (cogeneration or small power production) as a QF.
Electric	Self-Recertification of Qualifying Facility (QF)	Use to submit a notice of self- recertification of your facility (cogeneration or small power production) as a QF.
	Supplemental Information or Request	Use to correct or supplement a Form 556 that was submitted with errors or omissions, or for which Commission staff has requested additional information. Do not use this filing type to report new changes to a facility or its ownership; rather, use a self- recertification or Commission recertification to report such changes.
General	(Fee) Petition for Declaratory Order (not under FPA Part 1)	Use to submit a petition for declaratory order granting a waiver of Commission QF regulations pursuant to 18 C.F.R. §§ 292.204(a) (3) and/or 292.205(c). A Form 556 is not required for a petition for declaratory order unless Commission recertification is being requested as part of the petition.

You will be prompted to submit your filing fee, if applicable, during the electronic submission process. Filing fees can be paid via electronic bank account debit or credit card.

During the eFiling process, you will be prompted to select your file(s) for upload from your computer.

FERC Form 556 Page 3 - Instructions

Filing Fee

No filing fee is required if you are submitting a self-certification or self-recertification of your facility as a QF pursuant to 18 C.F.R. § 292.207(a).

A filing fee is required if you are filing either of the following:

(1) an application for Commission certification or recertification of your facility as a QF pursuant to 18 C.F.R. § 292.207(b), or

(2) a petition for declaratory order granting waiver pursuant to 18 C.F.R. §§ 292.204(a)(3) and/or 292.205(c).

The current fees for applications for Commission certifications and petitions for declaratory order can be found by visiting the Commission's QF website at www.ferc.gov/QF and clicking the Fee Schedule link.

You will be prompted to submit your filing fee, if applicable, during the electronic filing process described on page 2.

Required Notice to Utilities and State Regulatory Authorities

Pursuant to 18 C.F.R. § 292.207(a)(ii), you must provide a copy of your self-certification or request for Commission certification to the utilities with which the facility will interconnect and/or transact, as well as to the State regulatory authorities of the states in which your facility and those utilities reside. Links to information about the regulatory authorities in various states can be found by visiting the Commission's QF website at www.ferc.gov/QF and clicking the Notice Requirements link.

What to Expect From the Commission After You File

An applicant filing a Form 556 electronically will receive an email message acknowledging receipt of the filing and showing the docket number assigned to the filing. Such email is typically sent within one business day, but may be delayed pending confirmation by the Secretary of the Commission of the contents of the filing.

An applicant submitting a self-certification of QF status should expect to receive no documents from the Commission, other than the electronic acknowledgement of receipt described above. Consistent with its name, a self-certification is a certification by the applicant itself that the facility meets the relevant requirements for QF status, and does not involve a determination by the Commission as to the status of the facility. An acknowledgement of receipt of a self-certification, in particular, does not represent a determination by the Commission with regard to the QF status of the facility. An applicant self-certifying may, however, receive a rejection, revocation or deficiency letter if its application is found, during periodic compliance reviews, not to comply with the relevant requirements.

An applicant submitting a request for Commission certification will receive an order either granting or denying certification of QF status, or a letter requesting additional information or rejecting the application. Pursuant to 18 C.F.R. § 292.207(b)(3), the Commission must act on an application for Commission certification within 90 days of the later of the filing date of the application or the filing date of a supplement, amendment or other change to the application.

Waiver Requests

18 C.F.R. § 292.204(a)(3) allows an applicant to request a waiver to modify the method of calculation pursuant to 18 C.F.R. § 292.204(a)(2) to determine if two facilities are considered to be located at the same site, for good cause. 18 C.F.R. § 292.205(c) allows an applicant to request waiver of the requirements of 18 C.F.R. §§ 292.205(a) and (b) for operating and efficiency upon a showing that the facility will produce significant energy savings. A request for waiver of these requirements must be submitted as a petition for declaratory order, with the appropriate filing fee for a petition for declaratory order. Applicants requesting Commission recertification as part of a request for waiver of one of these requirements should electronically submit their completed Form 556 along with their petition for declaratory order, rather than filing their Form 556 as a separate request for Commission recertification. Only the filing fee for the petition for declaratory order must be paid to cover both the waiver request and the request for recertification *if such requests are made simultaneously*.

18 C.F.R. § 292.203(d)(2) allows an applicant to request a waiver of the Form 556 filing requirements, for good cause. Applicants filing a petition for declaratory order requesting a waiver under 18 C.F.R. § 292.203(d)(2) do not need to complete or submit a Form 556 with their petition.

FERC Form 556 Page 4 - Instructions

Geographic Coordinates

If a street address does not exist for your facility, then line 3c of the Form 556 requires you to report your facility's geographic coordinates (latitude and longitude). Geographic coordinates may be obtained from several different sources. You can find links to online services that show latitude and longitude coordinates on online maps by visiting the Commission's QF webpage at www.ferc.gov/QF and clicking the Geographic Coordinates link. You may also be able to obtain your geographic coordinates from a GPS device, Google Earth (available free at http://earth.google.com), a property survey, various engineering or construction drawings, a property deed, or a municipal or county map showing property lines.

Filing Privileged Data or Critical Energy Infrastructure Information in a Form 556

The Commission's regulations provide procedures for applicants to either (1) request that any information submitted with a Form 556 be given privileged treatment because the information is exempt from the mandatory public disclosure requirements of the Freedom of Information Act, 5 U.S.C. § 552, and should be withheld from public disclosure; or (2) identify any documents containing critical energy infrastructure information (CEII) as defined in 18 C.F.R. § 388.113 that should not be made public.

If you are seeking privileged treatment or CEII status for any data in your Form 556, then you must follow the procedures in 18 C.F.R. § 388.112. See www.ferc.gov/help/filing-guide/file-ceii.asp for more information.

Among other things (see 18 C.F.R. § 388.112 for other requirements), applicants seeking privileged treatment or CEII status for data submitted in a Form 556 must prepare and file both (1) a complete version of the Form 556 (containing the privileged and/or CEII data), and (2) a public version of the Form 556 (with the privileged and/or CEII data redacted). Applicants preparing and filing these different versions of their Form 556 must indicate below the security designation of this version of their document. If you are *not* seeking privileged treatment or CEII status for any of your Form 556 data, then you should not respond to any of the items on this page.

Non-Public: Applicant is seeking privileged treatment and/or CEII status for data contained in the Form 556 lines indicated below. This non-public version of the applicant's Form 556 contains all data, including the data that is redacted in the (separate) public version of the applicant's Form 556.
 Public (redacted): Applicant is seeking privileged treatment and/or CEII status for data contained in the Form 556 lines indicated below. This public version of the applicants's Form 556 contains all data except for data from the lines indicated below, which has been redacted.
Privileged : Indicate below which lines of your form contain data for which you are seeking privileged treatment
Critical Energy Infrastructure Information (CEII): Indicate below which lines of your form contain data for which you are seeking CEII status

The eFiling process described on page 2 will allow you to identify which versions of the electronic documents you submit are public, privileged and/or CEII. The filenames for such documents should begin with "Public", "Priv", or "CEII", as applicable, to clearly indicate the security designation of the file. Both versions of the Form 556 should be unaltered PDF copies of the Form 556, as available for download from www.ferc.gov/QF. To redact data from the public copy of the submittal, simply omit the relevant data from the Form. For numerical fields, leave the redacted fields blank. For text fields, complete as much of the field as possible, and replace the redacted portions of the field with the word "REDACTED" in brackets. Be sure to identify above all fields which contain data for which you are seeking non-public status.

The Commission is not responsible for detecting or correcting filer errors, including those errors related to security designation. If your documents contain sensitive information, make sure they are filed using the proper security designation.

FEDERAL ENERGY REGULATORY COMMISSION WASHINGTON, DC

OMB Control # 1902-0075 Expiration 06/30/2019

Form 556 Certification of Qualifying Facility (QF) Status for a Small Power Production or Cogeneration Facility

1b Applicant street address 201 Isabella Str			
1c City		1d State/provi	ince
Pittsburg		PA	
1e Postal code 15212-5858	1f Country (if not United States)		1g Telephone number 412 553 4237
1h Has the instant facility	r ever previously been certified as a Q	F? Yes N	No 🔀
1i If yes, provide the docl	ket number of the last known QF filing	g pertaining to th	nis facility: QF
1j Under which certificat	ion process is the applicant making th	is filing?	
Notice of self-certific (see note below)	cation A	pplication for Co e; see "Filing Fee	ommission certification (requires filing e" section on page 3)
QF status. A notice o	f self-certification does not establish a ation to verify compliance. See the "W	proceeding, and	
1k What type(s) of QF sta	itus is the applicant seeking for its faci	lity? (check all th	nat apply)
Qualifying small po	wer production facility status 🔲 Q	ualifying cogene	eration facility status
1I What is the purpose ar	nd expected effective date(s) of this fil	ing?	
Original certification	n; facility expected to be installed by	an	nd to begin operation on1/1/62
	iously certified facility to be effective o		
	change(s) below, and describe change	e(s) in the Miscel	laneous section starting on page 19)
☐ Name change ar☐ Change in owne	nd/or other administrative change(s)		
	·	nroduction cana	icity and/or cogeneration thermal output
	ction to a previous filing submitted or		and, and, or cogenition in an analysis
	ement or correction in the Miscellaneo		ng on page 19)
	g three statements is true, check the b e, explaining any special circumstance		ribe your situation and complete the form neous section starting on page 19.
previously granted	r complies with the Commission's QF r d by the Commission in an order date ellaneous section starting on page 19	d	virtue of a waiver of certain regulations (specify any other relevant waiver
	would comply with the Commission' this application is granted	s QF requiremen	its if a petition for waiver submitted
employment of ur	r complies with the Commission's regunique or innovative technologies not on of compliance via this form difficult	contemplated by	

FERC Form 556 Page 6 - All Facilities

	2a Name of contact person			2b Telephone number		
	Nick Oliver			(412) 553-1392		
	2c Which of the following describes t	:he contact person's rela	tionship to the ap	plicant? (check one)		
Contact Information		·		ized to represent the applicant		
		•	• •	ent the applicant on this matter		
		• •	•	• •		
	☐ Lawyer, consultant, or other rep			·		
	2d Company or organization name (if applicant is an individu	ıal, check here an	d skip to line 2e)		
	Alcoa Inc.					
	2e Street address (if same as Applicant, check here and skip to line 3a)					
	Alcoa Corporate Center, 6D09					
	201 Isabella Street					
O	2f City		2g State/prov	ince		
	Pittsburgh		PA			
	2h Postal code	2i Country (if not United	 d States)			
	15212	21 country (ii not office)	a states,			
	3a Facility name					
Ĕ	Tuckertown					
ţi						
Ca	3b Street address (if a street address	does not exist for the fa	cility, check here a	ind skip to line 3c)		
Γ						
ntification and Location						
l al				our facility by checking the box in line 3b,		
Ö				in degrees (to three decimal places). Uses and seconds: decimal degrees =		
at	degrees + (minutes/60) + (second	ds/3600). See the "Geog	graphic Coordinat	es" section on page 4 for help. If you		
ij	provided a street address for you	r facility in line 3b, then	specifying the geo	graphic coordinates below is optional.		
	Longitude East (+) 80	.176 degrees	Latitude	North (+) 35.486 degrees		
qe	West (-)	uegrees	Latitude	South (-)		
<u>></u>	3d City (if unincorporated, check her	e and enter nearest city				
≝	New London		North Ca	rolina		
Facility Ide	3f County (or check here for indeper	ndent city) 🗌 🔠	g Country (if not	: United States)		
ш.	Stanly					
	Identify the electric utilities that are contemplated to transact with the facility.					
S	4a Identify utility interconnecting with the facility					
itie	Duke Energy Carolinas and Duke Energy Progress					
Utilities	4b Identify utilities providing wheeling service or check here if none					
J (aentify utilities providing wheeli	ng service or check here	ir none ⊠			
Transacting						
)ct	4c Identify utilities purchasing the us	seful electric power outp	ut or check here i	fnone 🔀		
٦Sڌ						
<u>.</u> a		mentary power, backup	power, maintena	nce power, and/or interruptible power		
\vdash	service or check here if none					

Full legal names of direct owne	holding company	If Y % ec inte
1) Alcoa Power Generating Inc.	Yes ⊠ No □	
2)		
3)	Vaa 🗆 Na 🗀	
4)	Yes No No	
5)	Yes No No	
6)	Yes No No	
7)	Yes No No	
8)	Yes	
9)	Yes	
10)	Yes No No	
5b Upstream (i.e., indirect) ownership as of effective date or of the facility that both (1) hold at least 10 percent equity defined in section 3(22) of the Federal Power Act (16 U.S. 1262(8) of the Public Utility Holding Company Act of 200 equity interest in the facility held by such owners. (Note:	r interest in the facility, and (2) are electric utilitie C. 796(22)), or holding companies, as defined in 5 (42 U.S.C. 16451(8)). Also provide the percenta that, because upstream owners may be subsidia	ect) ow es, as section age of
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5b Upstream (i.e., indirect) ownership as of effective date or of the facility that both (1) hold at least 10 percent equity defined in section 3(22) of the Federal Power Act (16 U.S. 1262(8) of the Public Utility Holding Company Act of 200: equity interest in the facility held by such owners. (Note another, total percent equity interest reported may exceed the company of the Public Utility held by such owners.	operation date: Identify all upstream (i.e., indire vinterest in the facility, and (2) are electric utilitie C. 796(22)), or holding companies, as defined in 5 (42 U.S.C. 16451(8)). Also provide the percenta that, because upstream owners may be subsidial ed 100 percent.)	ect) ow es, as section age of aries of % eq inter
5b Upstream (i.e., indirect) ownership as of effective date or of the facility that both (1) hold at least 10 percent equity defined in section 3(22) of the Federal Power Act (16 U.S. 1262(8) of the Public Utility Holding Company Act of 200: equity interest in the facility held by such owners. (Note another, total percent equity interest reported may exceed the characteristic for such upstream owners exist.	operation date: Identify all upstream (i.e., indire vinterest in the facility, and (2) are electric utilitie C. 796(22)), or holding companies, as defined in 5 (42 U.S.C. 16451(8)). Also provide the percenta that, because upstream owners may be subsidial ed 100 percent.)	ect) ow es, as section age of aries of % eq inter
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5b Upstream (i.e., indirect) ownership as of effective date or of the facility that both (1) hold at least 10 percent equity defined in section 3(22) of the Federal Power Act (16 U.S. 1262(8) of the Public Utility Holding Company Act of 200: equity interest in the facility held by such owners. (Note another, total percent equity interest reported may exceed Check here if no such upstream owners exist. Full legal names of electric utility or holding 1) Alcoa Inc. 2) 3) 4) 5) 6)	operation date: Identify all upstream (i.e., indire vinterest in the facility, and (2) are electric utilitie C. 796(22)), or holding companies, as defined in 5 (42 U.S.C. 16451(8)). Also provide the percenta that, because upstream owners may be subsidial ed 100 percent.)	ect) ow es, as section age of aries of % eq inter

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	6a	Describe the primary energy input: (check one main category and, if applicable, one subcategory)							
		Biomas	s (specify)	⊠ Re	enev	vable resources (specify)	☐ Ge	eothermal	
		L	andfill gas		\boxtimes	Hydro power - river	Fc	ossil fuel (spec	fy)
		□ N	lanure digester gas			Hydro power - tidal		☐ Coal (not	waste)
		□ N	lunicipal solid waste			Hydro power - wave		☐ Fuel oil/di	esel
		□ See	ewage digester gas			Solar - photovoltaic		☐ Natural ga	s (not waste)
		□ W	/ood			Solar - thermal		Other foss	
		□ 0	ther biomass (describe on	page 19)		Wind		□ (describe	on page 19)
		☐ Waste (specify type below in line 6	b)		Other renewable resourd (describe on page 19)	e 🗌 Ot	ther (describe	on page 19)
	6b	If you spec	ified "waste" as the primary	energy inpu	ut in	line 6a, indicate the type	of waste f	fuel used: (che	ck one)
		☐ Waste	fuel listed in 18 C.F.R. § 29	2.202(b) (spe	ecify	one of the following)			
			Anthracite culm produced	prior to July	23,	1985			
			Anthracite refuse that has a ash content of 45 percent of		neat	content of 6,000 Btu or le	ess per poi	und and has a	n average
			Bituminous coal refuse tha average ash content of 25				u per pou	nd or less and	has an
nput	Top or bottom subbituminous coal produced on Federal lands or on Indian lands that has been determined to be waste by the United States Department of the Interior's Bureau of Land Manag (BLM) or that is located on non-Federal or non-Indian lands outside of BLM's jurisdiction, provide the applicant shows that the latter coal is an extension of that determined by BLM to be waste							anagement ovided that	
Energy Input	Coal refuse produced on Federal lands or on Indian lands that has been determined to be waste BLM or that is located on non- Federal or non-Indian lands outside of BLM's jurisdiction, provide applicant shows that the latter is an extension of that determined by BLM to be waste								
ш			Lignite produced in associa as a result of such a mining		ne p	roduction of montan wax	and lignit	e that become	es exposed
			Gaseous fuels (except natu	ral gas and	synt	hetic gas from coal) (des	cribe on pa	age 19)	
			Waste natural gas from gas C.F.R. § 2.400 for waste nat compliance with 18 C.F.R. §	ural gas; inc			-	•	
			Materials that a governmen	nt agency ha	as ce	ertified for disposal by co	mbustion	ı (describe on page 19)	
			Heat from exothermic reac	tions (descr	ibe	on page 19)	Residual	heat (describe	on page 19)
			Used rubber tires] Plastic ma	teri	als Refinery	off-gas	☐ Petro	oleum coke
		facility	waste energy input that hay industry (describe in the Note of the	Miscellaneoเ	us se	ection starting on page 19	; include a	a discussion of	
	6с	energy inp	average energy input, calc uts, and provide the related For any oil or natural gas f	l percentage	e of	the total average annual	energy inp	out to the facil	
			Fuel			average energy or specified fuel		age of total energy input	
			Natural gas			0 Btu/h		0 %	
			Oil-based fuels			0 Btu/h		0 %	
			Coal			0 Btu/h		0 %	

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Indicate the maximum gross and maximum net electric power production capacity of the facility at the point(s) of delivery by completing the worksheet below. Respond to all items. If any of the parasitic loads and/or losses identified in lines 7b through 7e are negligible, enter zero for those lines.

7a The maximum gross power production capacity at the terminals of the individual generator(s) under the most favorable anticipated design conditions	
7b Parasitic station power used at the facility to run equipment which is necessary and integral to the power production process (boiler feed pumps, fans/blowers, office or maintenance buildings directly related to the operation of the power generating facility, etc.). If this facility includes non-power production processes (for instance, power consumed by a cogeneration facility's thermal host), do not include any power consumed by the non-power production activities in your	40,500 kW
reported parasitic station power.	2.9 kW
7c Electrical losses in interconnection transformers	0 kW
7d Electrical losses in AC/DC conversion equipment, if any	0 kW
7e Other interconnection losses in power lines or facilities (other than transformers and AC/DC conversion equipment) between the terminals of the generator(s) and the point of interconnection with the utility	168.5 kW
7f Total deductions from gross power production capacity = 7b + 7c + 7d + 7e	171.4 kW
7g Maximum net power production capacity = 7a - 7f	
	40,328.6 kW

Poscription of facility and primary components: Describe the facility and its operation. Identify all boilers, heat recovery steam generators, prime movers (any mechanical equipment driving an electric generator), electrical generators, photovoltaic solar equipment, fuel cell equipment and/or other primary power generation equipment used in the facility. Descriptions of components should include (as applicable) specifications of the nominal capacities for mechanical output, electrical output, or steam generation of the identified equipment. For each piece of equipment identified, clearly indicate how many pieces of that type of equipment are included in the plant, and which components are normally operating or normally in standby mode. Provide a description of how the components operate as a system. Applicants for cogeneration facilities do not need to describe operations of systems that are clearly depicted on and easily understandable from a cogeneration facility's attached mass and heat balance diagram; however, such applicants should provide any necessary description needed to understand the sequential operation of the facility depicted in their mass and heat balance diagram. If additional space is needed, continue in the Miscellaneous section starting on page 19.

Tuckertown Dam is a concrete gravity and embankment structure and consists of a rockfill embankment section, an earthfill embankment section, three non-overflow gravity sections, a Tainter gate spillway section, and an integral intake/powerhouse.

The rockfill embankment is located between the east non-overflow section and the east abutment. It was constructed of dumped rockfill with a sloping impervious core. The earthfill embankment is a homogeneous earthfill section at the west abutment. This section wraps around the adjacent right non-overflow gravity section.

The east non-overflow gravity section is located at the east end of the powerhouse. The west non-overflow gravity section is located at the west end of the gated spillway section. The middle non-overflow section is located between the east end of the gated spillway and the west end of the powerhouse. The gate-controlled spillway section includes eleven Tainter gates that release surplus water during flood events.

The Tuckertown powerhouse and intake form a single structural unit integral with the dam. The powerhouse is located immediately downstream of the intake structure between the east non- overflow and middle non-overflow gravity sections.



Information Required for Small Power Production Facility

If you indicated in line 1k that you are seeking qualifying small power production facility status for your facility, then you

must	respond to the items on this page. Otherwise, skip page 10.						
	Pursuant to 18 C.F.R. § 292.204(a), the power production capacity of any small power production facility, together with the power production capacity of any other small power production facilities that use the same energy resource, are owned by the same person(s) or its affiliates, and are located at the same site, may not exceed 80 megawatts. To demonstrate compliance with this size limitation, or to demonstrate that your facility is exempt from this size limitation under the Solar, Wind, Waste, and Geothermal Power Production Incentives Act of 1990 (Pub. L. 101-575, 104 Stat. 2834 (1990) <i>as amended by</i> Pub. L. 102-46, 105 Stat. 249 (1991)), respond to lines 8a through 8e below (as applicable). 8a Identify any facilities with electrical generating equipment located within 1 mile of the electrical generating						
	8a Identify any facilities with electrical generating equipment located within 1 mile of the electrical equipment of the instant facility, and for which any of the entities identified in lines 5a or 5b, or at least a 5 percent equity interest.	9 1					
e G	Check here if no such facilities exist.						
of Complian Limitations	Facility location Root docket # (city or county, state) (if any) Common owner(s)	Maximum net power production capacity					
ati	1) QF -	kW					
Zit Co	2) QF -	kW					
to c		kW					
tification with Size	Check here and continue in the Miscellaneous section starting on page 19 if additional spa	ace is needed					
Certification of Compliance with Size Limitations	8b The Solar, Wind, Waste, and Geothermal Power Production Incentives Act of 1990 (Incentive exemption from the size limitations in 18 C.F.R. § 292.204(a) for certain facilities that were certificate you seeking exemption from the size limitations in 18 C.F.R. § 292.204(a) by virtue of the In Yes (continue at line 8c below) No (skip lines 8c through 8e)	fied prior to 1995.					
	8c Was the original notice of self-certification or application for Commission certification of the before December 31, 1994? Yes No	e facility filed on or					
	8d Did construction of the facility commence on or before December 31, 1999? Yes No						
	8e If you answered No in line 8d, indicate whether reasonable diligence was exercised toward the facility, taking into account all factors relevant to construction? Yes No If you are a brief narrative explanation in the Miscellaneous section starting on page 19 of the construction particular, describe why construction started so long after the facility was certified) and the dilitoward completion of the facility.	nswered Yes, provide on timeline (in					
rtification of Compliance th Fuel Use Requirements	Pursuant to 18 C.F.R. § 292.204(b), qualifying small power production facilities may use fossil further amounts, for only the following purposes: ignition; start-up; testing; flame stabilization; control prevention of unanticipated equipment outages; and alleviation or prevention of emergencies the public health, safety, or welfare, which would result from electric power outages. The amoused for these purposes may not exceed 25 percent of the total energy input of the facility duriperiod beginning with the date the facility first produces electric energy or any calendar year the	ol use; alleviation or , directly affecting unt of fossil fuels ing the 12-month					
ot C e Rei	9a Certification of compliance with 18 C.F.R. § 292.204(b) with respect to uses of fossil fuel:						
ion Us	Applicant certifies that the facility will use fossil fuels <i>exclusively</i> for the purposes listed	above.					
cat Jel	9b Certification of compliance with 18 C.F.R. § 292.204(b) with respect to amount of fossil fuel	used annually:					
rtifi th Fi	Applicant certifies that the amount of fossil fuel used at the facility will not, in aggregat percent of the total energy input of the facility during the 12-month period beginning						

facility first produces electric energy or any calendar year thereafter.

Information Required for Cogeneration Facility

If you indicated in line 1k that you are seeking qualifying cogeneration facility status for your facility, then you must respond to the items on pages 11 through 13. Otherwise, skip pages 11 through 13.

	energy (such as heat or suse of energy. Pursuant cycle cogeneration facilithermal application or pursuant cycle.	22.202(c), a cogeneration facility produces electric energy and forms of useful thermal steam) used for industrial, commercial, heating, or cooling purposes, through the sequential to 18 C.F.R. § 292.202(s), "sequential use" of energy means the following: (1) for a toppingty, the use of reject heat from a power production process in sufficient amounts in a process to conform to the requirements of the operating standard contained in 18 C.F.R. § obttoming-cycle cogeneration facility, the use of at least some reject heat from a thermal or power production.			
		eneration technology does the facility represent? (check all that apply)			
	I opping-cycle	e cogeneration Bottoming-cycle cogeneration			
	10b To help demonstrate the sequential operation of the cogeneration process, and to support compliance with other requirements such as the operating and efficiency standards, include with your filing a mass and heat balance diagram depicting average annual operating conditions. This diagram must include certain items and meet certain requirements, as described below. You must check next to the description of each requirement below to certify that you have complied with these requirements.				
	Check to certify compliance with				
	indicated requirement	Requirement			
ration n		Diagram must show orientation within system piping and/or ducts of all prime movers, heat recovery steam generators, boilers, electric generators, and condensers (as applicable), as well as any other primary equipment relevant to the cogeneration process.			
gene natio		Any average annual values required to be reported in lines 10b, 12a, 13a, 13b, 13d, 13f, 14a, 15b, 15d and/or 15f must be computed over the anticipated hours of operation.			
General Cogeneration Information		Diagram must specify all fuel inputs by fuel type and average annual rate in Btu/h. Fuel for supplementary firing should be specified separately and clearly labeled. All specifications of fuel inputs should use lower heating values.			
jen(Diagram must specify average gross electric output in kW or MW for each generator.			
O		Diagram must specify average mechanical output (that is, any mechanical energy taken off of the shaft of the prime movers for purposes not directly related to electric power generation) in horsepower, if any. Typically, a cogeneration facility has no mechanical output.			
		At each point for which working fluid flow conditions are required to be specified (see below), such flow condition data must include mass flow rate (in lb/h or kg/s), temperature (in °F, R, °C or K), absolute pressure (in psia or kPa) and enthalpy (in Btu/lb or kJ/kg). Exception: For systems where the working fluid is <i>liquid only</i> (no vapor at any point in the cycle) and where the type of liquid and specific heat of that liquid are clearly indicated on the diagram or in the Miscellaneous section starting on page 19, only mass flow rate and temperature (not pressure and enthalpy) need be specified. For reference, specific heat at standard conditions for pure liquid water is approximately 1.002 Btu/ (lb*R) or 4.195 kJ/(kg*K).			
		Diagram must specify working fluid flow conditions at input to and output from each steam turbine or other expansion turbine or back-pressure turbine.			
		Diagram must specify working fluid flow conditions at delivery to and return from each thermal application.			
		Diagram must specify working fluid flow conditions at make-up water inputs.			

	EPAct 2005 cogeneration facilities: The Energy Policy Act of 2005 (EPAct 2005) established a new section 210(n) of the Public Utility Regulatory Policies Act of 1978 (PURPA), 16 USC 824a-3(n), with additional requirements for any qualifying cogeneration facility that (1) is seeking to sell electric energy pursuant to section 210 of PURPA and (2) was either not a cogeneration facility on August 8, 2005, or had not filed a self-certification or application for Commission certification of QF status on or before February 1, 2006. These requirements were implemented by the Commission in 18 C.F.R. § 292.205(d). Complete the lines below, carefully following the instructions, to demonstrate whether these additional requirements apply to your cogeneration facility and, if so, whether your facility complies with such requirements.	
	11a Was your facility operating as a qualifying cogeneration facility on or before August 8, 2005? Yes No	į
	11b Was the initial filing seeking certification of your facility (whether a notice of self-certification or an application for Commission certification) filed on or before February 1, 2006? Yes No	į
ט ע	If the answer to either line 11a or 11b is Yes, then continue at line 11c below. Otherwise, if the answers to both lines 11a and 11b are No, skip to line 11e below.	
Facilities	11c With respect to the design and operation of the facility, have any changes been implemented on or after February 2, 2006 that affect general plant operation, affect use of thermal output, and/or increase net power production capacity from the plant's capacity on February 1, 2006?	•
	Yes (continue at line 11d below)	
Cogeneration	No. Your facility is not subject to the requirements of 18 C.F.R. § 292.205(d) at this time. However, it may be subject to to these requirements in the future if changes are made to the facility. At such time, the applicant would need to recertify the facility to determine eligibility. Skip lines 11d through 11j.	
oger	11d Does the applicant contend that the changes identified in line 11c are not so significant as to make the facility a "new" cogeneration facility that would be subject to the 18 C.F.R. § 292.205(d) cogeneration requirements?	-
rom C	Yes. Provide in the Miscellaneous section starting on page 19 a description of any relevant changes made to the facility (including the purpose of the changes) and a discussion of why the facility should not be considered a "new" cogeneration facility in light of these changes. Skip lines 11e through 11j.	
ergy Output from Cogeneration Facilities	No. Applicant stipulates to the fact that it is a "new" cogeneration facility (for purposes of determining the applicability of the requirements of 18 C.F.R. § 292.205(d)) by virtue of modifications to the facility that were initiated on or after February 2, 2006. Continue below at line 11e.	
	11e Will electric energy from the facility be sold pursuant to section 210 of PURPA?	į
W	Yes. The facility is an EPAct 2005 cogeneration facility. You must demonstrate compliance with 18 C.F.R. § 292.205(d)(2) by continuing at line 11f below.	
of En	No. Applicant certifies that energy will <i>not</i> be sold pursuant to section 210 of PURPA. Applicant also certifies its understanding that it must recertify its facility in order to determine compliance with the requirements of 18 C.F.R. § 292.205(d) <i>before</i> selling energy pursuant to section 210 of PURPA in the future. Skip lines 11f through 11j.	
	11f Is the net power production capacity of your cogeneration facility, as indicated in line 7g above, less than or equal to 5,000 kW?	į
	Yes, the net power production capacity is less than or equal to 5,000 kW. 18 C.F.R. § 292.205(d)(4) provides a rebuttable presumption that cogeneration facilities of 5,000 kW and smaller capacity comply with the requirements for fundamental use of the facility's energy output in 18 C.F.R. § 292.205(d)(2). Applicant certifies its understanding that, should the power production capacity of the facility increase above 5,000 kW, then the facility must be recertified to (among other things) demonstrate compliance with 18 C.F.R. § 292.205(d)(2). Skip lines 11g through 11j.	
	No, the net power production capacity is greater than 5,000 kW. Demonstrate compliance with the requirements for fundamental use of the facility's energy output in 18 C.F.R. § 292.205(d)(2) by continuing on the next page at line 11g.	

Lines 11g through 11k below guide the applicant through the process of demonstrating compliance with the requirements for "fundamental use" of the facility's energy output. 18 C.F.R. § 292.205(d)(2). Only respond to the lines on this page if the instructions on the previous page direct you to do so. Otherwise, skip this page.

18 C.F.R. § 292.205(d)(2) requires that the electrical, thermal, chemical and mechanical output of an EPAct 2005 cogeneration facility is used fundamentally for industrial, commercial, residential or institutional purposes and is not intended fundamentally for sale to an electric utility, taking into account technological, efficiency, economic, and variable thermal energy requirements, as well as state laws applicable to sales of electric energy from a qualifying facility to its host facility. If you were directed on the previous page to respond to the items on this page, then your facility is an EPAct 2005 cogeneration facility that is subject to this "fundamental use" requirement.

The Commission's regulations provide a two-pronged approach to demonstrating compliance with the requirements for fundamental use of the facility's energy output. First, the Commission has established in 18 C.F.R. § 292.205(d)(3) a "fundamental use test" that can be used to demonstrate compliance with 18 C.F.R. § 292.205(d)(2). Under the fundamental use test, a facility is considered to comply with 18 C.F.R. § 292.205(d)(2) if at least 50 percent of the facility's total annual energy output (including electrical, thermal, chemical and mechanical energy output) is used for industrial, commercial, residential or institutional purposes.

Second, an applicant for a facility that does not pass the fundamental use test may provide a narrative explanation of and support for its contention that the facility nonetheless meets the requirement that the electrical, thermal, chemical and mechanical output of an EPAct 2005 cogeneration facility is used fundamentally for industrial, commercial, residential or institutional purposes and is not intended fundamentally for sale to an electric utility, taking into account technological, efficiency, economic, and variable thermal energy requirements, as well as state laws applicable to sales of electric energy from a qualifying facility to its host facility.

Complete lines 11g through 11j below to determine compliance with the fundamental use test in 18 C.F.R. § 292.205(d)(3). Complete lines 11g through 11j even if you do not intend to rely upon the fundamental use test to demonstrate compliance with 18 C.F.R. § 292.205(d)(2).

11g Amount of electrical, thermal, chemical and mechanical energy output (net of internal	
generation plant losses and parasitic loads) expected to be used annually for industrial,	
commercial, residential or institutional purposes and not sold to an electric utility	MWh
11h Total amount of electrical, thermal, chemical and mechanical energy expected to be	
sold to an electric utility	MWh
11i Percentage of total annual energy output expected to be used for industrial,	
commercial, residential or institutional purposes and not sold to a utility	
= 100 * 11g /(11g + 11h)	0 %

11j Is the response in line 11i greater than or equal to 50 percent?

Yes. Your facility complies with 18 C.F.R. § 292.205(d)(2) by virtue of passing the fundamental use test provided in 18 C.F.R. § 292.205(d)(3). Applicant certifies its understanding that, if it is to rely upon passing the fundamental use test as a basis for complying with 18 C.F.R. § 292.205(d)(2), then the facility must comply with the fundamental use test both in the 12-month period beginning with the date the facility first produces electric energy, and in all subsequent calendar years.

No. Your facility does not pass the fundamental use test. Instead, you must provide in the Miscellaneous section starting on page 19 a narrative explanation of and support for why your facility meets the requirement that the electrical, thermal, chemical and mechanical output of an EPAct 2005 cogeneration facility is used fundamentally for industrial, commercial, residential or institutional purposes and is not intended fundamentally for sale to an electric utility, taking into account technological, efficiency, economic, and variable thermal energy requirements, as well as state laws applicable to sales of electric energy from a QF to its host facility. Applicants providing a narrative explanation of why their facility should be found to comply with 18 C.F.R. § 292.205(d)(2) in spite of non-compliance with the fundamental use test may want to review paragraphs 47 through 61 of Order No. 671 (accessible from the Commission's QF website at www.ferc.gov/QF), which provide discussion of the facts and circumstances that may support their explanation. Applicant should also note that the percentage reported above will establish the standard that that facility must comply with, both for the 12-month period beginning with the date the facility first produces electric energy, and in all subsequent calendar years. See Order No. 671 at paragraph 51. As such, the applicant should make sure that it reports appropriate values on lines 11g and 11h above to serve as the

relevant annual standard, taking into account expected variations in production conditions.

Btu/h

6)

Information Required for Topping-Cycle Cogeneration Facility

If you indicated in line 10a that your facility represents topping-cycle cogeneration technology, then you must respond to the items on pages 14 and 15. Otherwise, skip pages 14 and 15.

The thermal energy output of a topping-cycle cogeneration facility is the net energy made available to an industrial
or commercial process or used in a heating or cooling application. Pursuant to sections 292.202(c), (d) and (h) of the
Commission's regulations (18 C.F.R. §§ 292.202(c), (d) and (h)), the thermal energy output of a qualifying topping-
cycle cogeneration facility must be useful. In connection with this requirement, describe the thermal output of the
topping-cycle cogeneration facility by responding to lines 12a and 12b below.

	Name of entity (thermal host) taking thermal output	Thermal host's relationship to facility; Thermal host's use of thermal output	Average annual rate of thermal output attributable to use (net of heat contained in process return or make-up water)
1)		Select thermal host's relationship to facility	
1)		Select thermal host's use of thermal output	Btu/h
2)		Select thermal host's relationship to facility	
۷)		Select thermal host's use of thermal output	Btu/h
3)		Select thermal host's relationship to facility	
٥)		Select thermal host's use of thermal output	Btu/h
4)		Select thermal host's relationship to facility	
7)		Select thermal host's use of thermal output	Btu/h
5)		Select thermal host's relationship to facility	
(د		Select thermal host's use of thermal output	Btu/h
	I	·	1

12b Demonstration of usefulness of thermal output: At a minimum, provide a brief description of each use of the thermal output identified above. In some cases, this brief description is sufficient to demonstrate usefulness. However, if your facility's use of thermal output is not common, and/or if the usefulness of such thermal output is not reasonably clear, then you must provide additional details as necessary to demonstrate usefulness. Your application may be rejected and/or additional information may be required if an insufficient showing of usefulness is made. (Exception: If you have previously received a Commission certification approving a specific use of thermal output related to the instant facility, then you need only provide a brief description of that use and a reference by date and docket number to the order certifying your facility with the indicated use. Such exemption may not be used if any change creates a material deviation from the previously authorized use.) If additional space is needed, continue in the Miscellaneous section starting on page 19.

Select thermal host's relationship to facility

Select thermal host's use of thermal output

Check here and continue in the Miscellaneous section starting on page 19 if additional space is needed

Applicants for facilities representing topping-cycle technology must demonstrate compliance with the topping-cycle operating standard and, if applicable, efficiency standard. Section 292.205(a)(1) of the Commission's regulations (18 C.F.R. § 292.205(a)(1)) establishes the operating standard for topping-cycle cogeneration facilities:
the useful thermal energy output must be no less than 5 percent of the total energy output. Section 292.205(a)(2)
(18 C.F.R. § 292.205(a)(2)) establishes the efficiency standard for topping-cycle cogeneration facilities for which
installation commenced on or after March 13, 1980: the useful power output of the facility plus one-half the useful
thermal energy output must (A) be no less than 42.5 percent of the total energy input of natural gas and oil to the
facility; and (B) if the useful thermal energy output is less than 15 percent of the total energy output of the facility,
be no less than 45 percent of the total energy input of natural gas and oil to the facility. To demonstrate
compliance with the topping-cycle operating and/or efficiency standards, or to demonstrate that your facility is
exempt from the efficiency standard based on the date that installation commenced, respond to lines 13a through
13l below.

If you indicated in line 10a that your facility represents *both* topping-cycle and bottoming-cycle cogeneration technology, then respond to lines 13a through 13l below considering only the energy inputs and outputs attributable to the topping-cycle portion of your facility. Your mass and heat balance diagram must make clear which mass and energy flow values and system components are for which portion (topping or bottoming) of the cogeneration system.

13a Indicate the annual average rate of useful thermal energy output made available	
to the host(s), net of any heat contained in condensate return or make-up water	Btu/h
13b Indicate the annual average rate of net electrical energy output	
	kW
13c Multiply line 13b by 3,412 to convert from kW to Btu/h	
	0 Btu/h
13d Indicate the annual average rate of mechanical energy output taken directly off	
of the shaft of a prime mover for purposes not directly related to power production	
(this value is usually zero)	hp
13e Multiply line 13d by 2,544 to convert from hp to Btu/h	·
	0 Btu/h
13f Indicate the annual average rate of energy input from natural gas and oil	
,	Btu/h
13g Topping-cycle operating value = 100 * 13a / (13a + 13c + 13e)	Dedyff
Topping eyere operating raide 100 1507 (150 1 150 1 150)	0 %
13h Topping-cycle efficiency value = 100 * (0.5*13a + 13c + 13e) / 13f	0 70
Topping eyele emeleney value 100 (old 150 1 150 1 150), 151	0 %
13i Compliance with operating standard: Is the operating value shown in line 13g gr	
131 Compliance with operating standard. Is the operating value shown in line 139 gr	eater than or equal to 3%:
Yes (complies with operating standard) No (does not comply w	ith operating standard)
13j Did installation of the facility in its current form commence on or after March 13,	1980?
Yes. Your facility is subject to the efficiency requirements of 18 C.F.R. § 292.20	15(a)(2) Demonstrate
compliance with the efficiency requirement by responding to line 13k or 13l, a	
compliance with the efficiency requirement by responding to line 15k of 15l, 8	as applicable, below.
No. Your facility is exempt from the efficiency standard. Skip lines 13k and 13	l.
13k Compliance with efficiency standard (for low operating value): If the operating v	
than 15%, then indicate below whether the efficiency value shown in line 13h greater	than or equal to 45%:
Yes (complies with efficiency standard) No (does not comply w	ith efficiency standard)
13l Compliance with efficiency standard (for high operating value): If the operating value greater than or equal to 15%, then indicate below whether the efficiency value shown equal to 42.5%:	
Yes (complies with efficiency standard) No (does not comply w	ith efficiency standard)

Information Required for Bottoming-Cycle Cogeneration Facility

If you indicated in line 10a that your facility represents bottoming-cycle cogeneration technology, then you must respond to the items on pages 16 and 17. Otherwise, skip pages 16 and 17.

14a		mal host and each bottoming-cycle cogeneration protection of the ottoming-cycle cogeneration processes, provide the	e data for each process in
	Name of entity (thermal host) performing the process from which at least some of the reject heat is used for power production	Thermal host's relationship to facility; Thermal host's process type	Has the energy input to the thermal host been augmented for purposes of increasing power production capacity? (if Yes, describe on p. 19)
1)		Select thermal host's relationship to facility	Yes No
1)		Select thermal host's process type	
2)		Select thermal host's relationship to facility	Yes No
2)		Select thermal host's process type	
2)		Select thermal host's relationship to facility	Yes No
3)		Select thermal host's process type	
			. !
ider	Demonstration of usefulness of atified above. In some cases, this	the Miscellaneous section starting on page 19 if adding the first thermal output: At a minimum, provide a brief destroyer brief description is sufficient to demonstrate useful	cription of each process ness. However, if your
ider facil mus add prev facil to tl	Demonstration of usefulness of ntified above. In some cases, this lity's process is not common, and it provide additional details as ne itional information may be requiviously received a Commission cellity, then you need only provide ane order certifying your facility we	he Miscellaneous section starting on page 19 if addi	cription of each process ness. However, if your easonably clear, then you on may be rejected and/or (Exception: If you have ocess related to the instant y date and docket number be used if any material

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Applicants for facilities representing bottoming-cycle technology and for which installation commenced on or after March 13, 1990 must demonstrate compliance with the bottoming-cycle efficiency standards. Section 292.205(b) of the Commission's regulations (18 C.F.R. § 292.205(b)) establishes the efficiency standard for bottoming-cycle cogeneration facilities: the useful power output of the facility must be no less than 45 percent of the energy input of natural gas and oil for supplementary firing. To demonstrate compliance with the bottoming-cycle efficiency standard (if applicable), or to demonstrate that your facility is exempt from this standard based on the date that installation of the facility began, respond to lines 15a through 15h below.

If you indicated in line 10a that your facility represents *both* topping-cycle and bottoming-cycle cogeneration technology, then respond to lines 15a through 15h below considering only the energy inputs and outputs attributable to the bottoming-cycle portion of your facility. Your mass and heat balance diagram must make clear which mass and energy flow values and system components are for which portion of the cogeneration system (topping or bottoming).

(topping or bottoming).	
15a Did installation of the facility in its current form commence on or after March 13,	1980?
Yes. Your facility is subject to the efficiency requirement of 18 C.F.R. § 292.205 with the efficiency requirement by responding to lines 15b through 15h below	-
No. Your facility is exempt from the efficiency standard. Skip the rest of page	17.
15b Indicate the annual average rate of net electrical energy output	kW
15c Multiply line 15b by 3,412 to convert from kW to Btu/h	0 Btu/h
15d Indicate the annual average rate of mechanical energy output taken directly off of the shaft of a prime mover for purposes not directly related to power production (this value is usually zero)	hp
15e Multiply line 15d by 2,544 to convert from hp to Btu/h	n Btu/h
15f Indicate the annual average rate of supplementary energy input from natural gas or oil	Btu/h
15g Bottoming-cycle efficiency value = 100 * (15c + 15e) / 15f	0 %
15h Compliance with efficiency standard: Indicate below whether the efficiency value than or equal to 45%:	e shown in line 15g is greater
Yes (complies with efficiency standard) No (does not comply wi	th efficiency standard)

FERC Form 556 Page 18 - All Facilities

Certificate of Completeness, Accuracy and Authority

Applicant must certify compliance with and understanding of filing requirements by checking next to each item below and signing at the bottom of this section. Forms with incomplete Certificates of Completeness, Accuracy and Authority will be rejected by the Secretary of the Commission.

Signer identified below certifies the following: (check all items and applicable subitems)

signer identified below certifies the follow	ving. (Check all items and applicable subitems)	
<u> </u>	g any information contained in any attached do d any information contained in the Miscellaneou	
\bowtie He or she has provided all of the requ to the best of his or her knowledge an	ired information for certification, and the provind belief.	ded information is true as stated,
He or she possess full power and auth Practice and Procedure (18 C.F.R. § 38	nority to sign the filing; as required by Rule 2005 35.2005(a)(3)), he or she is one of the following:	5(a)(3) of the Commission's Rules of (check one)
☐ The person on whose behalf t	the filing is made	
$\ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ $	trust, association, or other organized group on	behalf of which the filing is made
\Box An officer, agent, or employe filing is made	of the governmental authority, agency, or instr	umentality on behalf of which the
A representative qualified to practice and Procedure (18 C.	practice before the Commission under Rule 210 F.R. § 385.2101) and who possesses authority to	of the Commission's Rules of o sign
He or she has reviewed all automatic Miscellaneous section starting on page	calculations and agrees with their results, unles ge 19.	ss otherwise noted in the
interconnect and transact (see lines 4 facility and those utilities reside. See page 3 for more information. Provide your signature, address and signa Procedure (18 C.F.R. § 385.2005(c)) provide	Form 556 and all attachments to the utilities what through 4d), as well as to the regulatory auth the Required Notice to Public Utilities and State ture date below. Rule 2005(c) of the Commission es that persons filing their documents electronical documents. A person filing this document ded below.	orities of the states in which the e Regulatory Authorities section on on's Rules of Practice and ically may use typed characters
Your Signature	Your address	Date
David R. Poe	2001 M Street, NW, Suite 900 Washington, DC 20036-3310	9/28/2016
Audit Notes		
Commission Staff Use Only:]

FERC Form 556 Page 19 - All Facilities

Miscellaneous

Use this space to provide any information for which there was not sufficient space in the previous sections of the form to provide. For each such item of information *clearly identify the line number that the information belongs to.* You may also use this space to provide any additional information you believe is relevant to the certification of your facility.

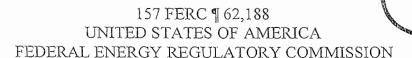
Your response below is not limited to one page. Additional page(s) will automatically be inserted into this form if the length of your response exceeds the space on this page. Use as many pages as you require.

Line 7h)

The structure consists of a concrete substructure containing three water passages and a conventional steel truss and frame structure. The intake structure includes trashracks and six motor operated fixed wheel headgates.

The Tuckertown powerhouse contains three 12,680 kW Kaplan turbines, each operating under a net head of 53.5 ft, direct-connected to generators having a total capacity of 46,665 kW (Units 1, 2, and 3 @ 15,555 kW maximum capacity), for a total installed capacity of 38,040 kW as limited by the turbines. The Tuckertown Development has a total hydraulic capacity of 11,475 cfs.

Mar 05 2021



Alcoa Power Generating Inc.

Cube Yadkin Generation LLC

Project No. 2197-109

ORDER APPROVING TRANSFER OF LICENSE

(Issued December 13, 2016)

1. By application filed July 25, 2016, Alcoa Power Generating Inc. (Alcoa Power or transferor) and Cube Yadkin Generation LLC (Cube Yadkin or transferee) seek Commission approval to transfer the license and substitute the relicense applicant for the Yadkin Hydroelectric Project No. 2197, located on the Yadkin River in Stanly, Montgomery, Davidson, and Rowan counties, North Carolina. The project does not occupy federal lands.

Background

- 2. A 50-year license for the project was issued to Carolina Aluminum Company on May 19, 1958. The Commission approved a transfer of license to Alcoa Power Generating Inc. on July 17, 2000. On April 25, 2006, Alcoa Power filed a new license application. That license expired on April 30, 2008. Since that time the project has been operating under annual licenses until September 22, 2016, when the Commission issued a new license to Alcoa Power.
- 3. The Commission issued a public notice of the current application for transfer on August 1, 2016, establishing August 31, 2016 as the deadline for filing comments,

¹ 19 FPC 704 (1958).

² 92 FERC ¶ 62,029 (2000).

³ Section 15(a)(1) of the FPA, 16 U.S.C. § 808 (a)(i) requires the Commission, at the expiration of a license term, to issue from year-to-year an annual license to the then licensee under the terms and conditions of the prior license until a new license is issued.

⁴ 156 FERC ¶ 62,210 (2016). The license term is for a period of 38 years, 7 months. The applicants' requested substitution of the transferee for the transferor as the applicant in the then pending application for a new license for the Yadkin Project is moot due to the issuance of the new license.

Project No. 2197-109

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motions to intervene,5 and protests. Timely motions to intervene were filed on August 29, 2016, by Trading Ford Historic District Preservation Association (Trading Ford Historic District), and the North Carolina Wildlife Resources Commission (North Carolina Wildlife). On August 30, 2016, timely motions to intervene were filed by American Rivers, New Energy Capital Partners, LLC (New Energy), and Yadkin Riverkeeper, Inc. (Riverkeeper), and on August 31, 2015, timely motions or notices to intervene were filed by Central Park NC (Central Park), North Carolina Department of Environmental Quality (North Carolina Environmental Quality), Stanly County, and the North Carolina Department of Justice (North Carolina Justice).7 Comments were filed on August 30 and August 31, 2016 by the City of Salisbury (Salisbury) and Riverkeeper, respectively.

Commission's Standard for Transfers

Section 8 of the Federal Power Act (FPA), 8 which governs license transfers, does 4. not articulate a standard for approving a transfer application.9 The Commission has held that a transfer may be approved on a showing that the transferee is qualified to hold the license and operate the project, and that a transfer is in the public interest! Specifically, a license transfer proceeding is a limited inqui_{ry} of the ability of the transferee to carry

⁵ If no answer in opposition to a timely motion to intervene is filed within 15 days after the motion to intervene is filed, the movant becomes a party at the end of the 15 day period. If an answer in opposition to a timely motion to intervene is filed not later than 15 days after the motion to intervene is filed, the movant becomes a party only when the motion is expressly granted, 18 C.F.R. § 385.214(c)(1) and (2) (2016).

⁶ Alcoa Power and Cube Yadkin filed oppositions to New Energy's motion to intervene, and, on December 7, 2016, the Commission denied the motion. While New Energy is thus not a party to this proceeding, we have fully considered its comments.

⁷ Alcoa Power and Cube Yadkin also filed oppositions to North Carolina Justice's motion; the Commission granted the motion on December 7, 2016.

⁸ 16 U.S.C. § 801 (2012); see also 18 C.F.R. §§ 9.1 -9.3 (2016).

⁹ See Potosi Generating Station, Inc. and Willow Creek Hydro, LLC, 100 FERC i! 61,115 (2002).

¹⁰ See Wisconsin v. FERC, 104 F.3d 462 (D.C. Cir. 1997). See also, e.g., Gallia Hydro Partners and Rathgar Development Associates, LLC, 110 FERC i 61,237 (2005); 18 C.F.R. pt. 9.3 (2015); Confederated Salish and Kootenai Tribes, 153 FERC if 61,217 (2015).

Project No. 2197-109

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out its responsibilities under the license. In evaluating a license transfer application, we consider the fitness of the transferee to carry out its responsibilities under the license, including the transferee's control over the project's facilities and payment of the project's annual charges under the FPA, and whether the transfer is in that sense in the public interest. Section 8 of the FPA does not, however, require us to revisit all issues that must be considered under FPA section IO(a)(l) before determining whether to license the project itself. 11

Discussion

A. Cube Yadkin Qualifications

- 5. Several parties and commenters oppose the transfer based on a general assertion that the transfer is contrary to the public interest. However, none of the commenters or intervenors raises specific issues about the fitness of the transferee to be a licensee. For example, North Carolina Justice asserts that Alcoa's and Cube Yadkin's transfer application does not provide sufficient information about Cube Yadkin's qualifications to be the licensee for the project.
- 6. We find that Cube Yadkin's transfer application demonstrated that it is qualified to be the licensee for the Yadkin Project. As explained in Cube Hydro's application, Cube Yadkin was formed for the purpose of owning and operating the project. It is authorized to engage in the business of developing, transmitting and distributing power. Cube Yadkin is affiliated with numerous companies (Cube Hydro) involved in the operation and maintenance of hydroelectric projects and will have ready access to their expertise. Numerous Alcoa Power employees that have experience with the Yadkin Project will become employees of Cube Yadkin, or an affiliate of Cube Yadkin, as part of the proposed transaction. 12 Based on the foregoing, there is no basis here to question Cube Hydro's fitness to be a licensee, and we find that the transfer is consistent with the public interest. 13

^{(1998).}

¹² Application for Approval of Transfer of License filed July 25, 2016.

¹³ In addition, it is the Commission's policy is to scrutinize transfer requests thatas is the case here - are filed during the last five years of a license term to detelmine if the purpose of the transfer is to elude Commission review of a transferor's poor compliance record. See Eugene Water & Electric Board, 155 FERC 162,242, at P 19 (2016): 111enominee Company, 74 FERC '161,023 (1996); and AER NY-Gen, LLC, 133 FERC 162,143 (2010). There is no basis in this record to conclude that the transfer application for the Yadkin Project was filed to avoid consideration of a poor compliance (continued ...)

Mar 16 2017

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B. Project Impacts and Mitigation Measures

The motions to intervene and comments of New Energy, North Carolina Justice, 7. and Riverkeeper raise numerous issues related to the relicensing proceeding, the license itself, and project impacts. Specifically, New Energy argues that the transfer should be denied to allow Cube Yadkin and others the ability to compete for the new license. North Carolina Justice argues that: (1) there is an open question, subject to pending litigation, regarding whether Alcoa Power holds lawful title to all the property rights (specifically, rights to the project waters) as required by the license and (2) the facts and circumstances bearing directly on the 2006 relicense application have changed significantly. Riverkeeper asserts that the license cannot be transferred due to uncertainty surrounding the status and responsibilities of Cube Yadkin under the May 7, 2007 Yadkin Relicensing Settlement Agreement signed by 23 parties to the relicensing proceeding. We find that these arguments, which relate to either the now completed relicensing proceeding or the license itself and the operation of the project, are not relevant to this transfer proceeding. When a license is transferred, the new licensee steps into the shoes of the old licensee, and is subject to any and all requirements to which the old licensee was subject under the license and the Commission's orders thereunder. Moreover, the mere transfer of a license does not alter a project's environmental impacts, or the determination of what mitigation measures are warranted. Consequently aproject's environmental impacts and appropriate mitigation measures are not germane in a transfer proceeding. Such arguments are collateral attacks on license orders granting a new license and may not be raised in limited proceeding such as this one. 15

record or otherwise give the transferee an advantage in relicensing. Moreover, this concern is moot as the Commission already evaluated the transferor's compliance llistory, found it satisfactory, and issued a new license. Alcoa Power Generating Inc., 156 FERC i 62,210 at PP 160, 162.

¹⁴ See Alcoa Power Generating Inc., 156 FERC \(\frac{1}{3}\)62,210 at PP 7, 13 (order issuing new license describing and incorporating in part the Settlement Agreement).

¹⁵ See Confederated Salish and Kootenai Tribes, 152 FERC 62,140(2015).

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Project No. 2197-109

C. Reopening the License

- 8. New Energy, North Carolina Justice, Riverkeeper and Central Park NC also request that the Commission reopen a new license application proceeding for the Yadkin Hydroelectric Project due to the application for transfer. In an earlier proceeding, New Energy filed a request for rehearing of the notice rejecting its motion to reopen the record. In the order denying rehearing, ¹⁶ the Commission held that it must only reopen license proceedings where changes in an applicant's plan of development are material, that is, involve significant changes to a project's physical features such that it should be considered an entirely new project. ¹⁷ No such changes have occurred in this proceeding. ¹⁸
- 9. A transferee is subject to any and all requirements to which the old licensee was subject under the license and the Commission's orders thereunder. Moreover, a license transfer, a ministerial action, does not involve any significant changes in the license and does not provide an opportunity to reopen the licensing proceeding. We find no basis for reopening the relicensing proceeding.
- 10. Given that section 15(c)(1) ¹⁹ of the FPA requires that all applications for a new license be filed no later than two years from the date of expiration of an existing license (in this case, by April 30, 2006), by the time that the transfer application was filed, it was almost 10 years too late for a competing application to be filed. In consequence, even if we had been required to reopen the relicensing proceeding, it would have been a meaningless exercise.

¹⁶ Alcoa Power Generating Inc., 152 FERC \$\mathbf{t}\$ 61,040 (2015).

¹⁷ See Erie BoulevardHydropower, L.P., 131 FERC **1**,036 at PP 17, 37; reh'g denied, 134 FERC **1**,61,205 at PP 31, 32; reh'g denied, 136 FERC **1**,61,044 (2011); summarily ajf'd, Green Island Power Authority v. FERC, 497 Fed. Appx. 127 (2d Cir. 2012).

¹⁸ As explained in *Alcoa Power Generating Inc.*, 144 FERC £61,218, at PP 24-25, the two matters raised by New Energy - the settlement agreement and two water withdrawal agreements - did not constitute material amendments to Alcoa's license application.

¹⁹ 18 U.S.C. § 808(c)(1) (2012).

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Project No. 2197-109

oject No. 2197-109

D. Authority to Transfer an Annual License

11. New Energy asserts that the Commission docs not have the authority under section 15(a)(1) of the FPA to transfer an annual license. In fact, the Commission has held that annual licenses may be transferred.2° In any event, because the new license has been issued to Alcoa Power, this is not a transfer of an annual license, but rather a transfer of a new license.

E. Terms and Conditions of the Transfer

- 12. The transferee agrees to accept all of the terms and conditions of the license and to be bound by the license as if it were the original licensee. The transferor agrees to pay annual charges that have accrued to the date of the transfer.
- 13. The transferee will be required to comply with the requirements of the license as though it were the original licensee. Based on the foregoing, transfer of the license for this project is consistent with the Commission's regulations and is in the public interest.

The Director orders:

- (A) The transfer of the license for the Yadkin Hydroelectric Project No. 2197 from Alcoa Power Generating Inc. to Cube Yadkin Generation LLC is approved.
- (B) Alcoa Power Generating Inc. shall pay all annual charges that accrue up to the effective date of the transfer.
- (C) Approval of the transfer is contingent upon: (1) transfer of title of the properties under license, transfer of all project files including all dam safety related documents, and delivery of all license instruments to Cube Yadkin Generation LLC which shall be subject to the tenns and conditions of the license as though it were the original licensee; and (2) Cube Yadkin Generation LLC acknowledging acceptance of this order and its terms and conditions by signing and returning the attached acceptance sheet. Within 60 days from the date of this order, Cube Yadkin Generation LLC :hall file certified copies of all instruments of conveyance and the signed acceptance sheet.

²⁰ See Niagara Mohawk Corporation, & FERC, 62,082 at p. 64, 153 (1999).

[&]quot;..... Section 15(a)(l) requires the yearly issuance of an annual license to the "then licensee" doesn't mean that annual licenses can't be transferred, as the City of Oswego argues. Section 15(a)(l) does not mention transfers of annual licenses, much less bar them." See e.g. Edwards Manufacturing Company, Inc., 84 FERC, 61,227 (1998).

- (D) Approval of the transfer is also contingent upon filing of a comprehensive insurance policy that will include business interruption coverage and major loss coverage up to the replacement cost, or any other provisions made by the transferee, that will be available to cover the cost of unexpected maintenance and repairs (e.g., major turbine or generator malfunctions, dam safety repairs) for the project within 60 days from the date of this order.
- (E) This order constitutes final agency action. Any party may file a request for rehearing of this order within 30 days from the date of its issuance, as provided in § 313(a) of the FPA, 16 U.S.C. § 825! (2012), and the Commission's regulations at 18 C.F.R. § 385.713 (2016). The filing of a request for rehearing does not operate as a stay of the effective date of this order, or of any other date specified in this order. The licensee's failure to file a request for rehearing shall constitute acceptance of this order.

Jennifer Hill
Director
Division of Hydropower Administration
and Compliance

Collins Cross-Examination Exhibit No. 5

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1050 Thomas Jefferson Street, NW Seventh Floor Washington, DC 20007 (202) 298-1800 Phone (202) 338-2416 Fax

Julia S. Wood (202) 298-1938 jsw@vnf.com

March 9, 2018

Chief Clerk's Office North Carolina Utilities Commission 4325 Mail Service Center Raleigh, NC 27699-4300

RE: Cube Yadkin Generation LLC

NCUC Docket No. SP-9172-Sub 2 NCUC Docket No. SP-8760-Sub 0 FERC Docket No. OF16-1309 MAR 1 6 2018

Clerk's Office

N.C. Utilities Commission

Dear Chief Clerk:

Pursuant to the Federal Energy Regulatory Commission's ("FERC") regulations, 18 C.F.R. § 292.207(c)(1), please find enclosed the Form 556 of Cube Yadkin Generation LLC filed with FERC today in FERC Docket No.QF16-1309. The attached Form 556 was filed with FERC to reflect a change in ownership of the certified facility. We respectfully request the North Carolina Utilities Commission ("NCUC") please accept for filing the attached Form 556 under NCUC Docket Nos. SP-9172-Sub 2; and SP-8760-Sub 0.

If you have any questions or need further information, please contact the undersigned at the information above.

Respectfully submitted,

Julia S. Wood

Counsel for Cube Yadkin Generation LLC

Vinis. Want

FEDERAL ENERGY REGULATORY COMMISSION WASHINGTON, DC

OMB Control # 1902-0075 Expiration 06/30/2019

Form 556 Certification of Qualifying Facility (QF) Status for a Small Power Production or Cogeneration Facility

General

Questions about completing this form should be sent to Form556@ferc.gov. Information about the Commission's QF program, answers to frequently asked questions about QF requirements or completing this form, and contact information for QF program staff are available at the Commission's QF website, www.ferc.gov/QF. The Commission's QF website also provides links to the Commission's QF regulations (18 C.F.R. § 131.80 and Part 292), as well as other statutes and orders pertaining to the Commission's QF program.

Who Must File

Any applicant seeking QF status or recertification of QF status for a generating facility with a net power production capacity (as determined in lines 7a through 7g below) greater than 1000 kW must file a self-certification or an application for Commission certification of QF status, which includes a properly completed Form 556. Any applicant seeking QF status for a generating facility with a net power production capacity 1000 kW or less is exempt from the certification requirement, and is therefore not required to complete or file a Form 556. See 18 C.F.R. § 292.203.

How to Complete the Form 556

This form is intended to be completed by responding to the items in the order they are presented, according to the instructions given. If you need to back-track, you may need to clear certain responses before you will be allowed to change other responses made previously in the form. If you experience problems, click on the nearest help button () for assistance, or contact Commission staff at Form556@ferc.gov.

Certain lines in this form will be automatically calculated based on responses to previous lines, with the relevant formulas shown. You must respond to all of the previous lines within a section before the results of an automatically calculated field will be displayed. If you disagree with the results of any automatic calculation on this form, contact Commission staff at Form556@ferc.gov to discuss the discrepancy before filing.

You must complete all lines in this form unless instructed otherwise. Do not alter this form or save this form in a different format. Incomplete or altered forms, or forms saved in formats other than PDF, will be rejected.

How to File a Completed Form 556

Applicants are required to file their Form 556 electronically through the Commission's eFiling website (see instructions on page 2). By filing electronically, you will reduce your filing burden, save paper resources, save postage or courier charges, help keep Commission expenses to a minimum, and receive a much faster confirmation (via an email containing the docket number assigned to your facility) that the Commission has received your filing.

If you are simultaneously filing both a waiver request and a Form 556 as part of an application for Commission certification, see the "Waiver Requests" section on page 3 for more information on how to file.

Paperwork Reduction Act Notice

This form is approved by the Office of Management and Budget. Compliance with the information requirements established by the FERC Form No. 556 is required to obtain or maintain status as a QF. See 18 C.F.R. § 131.80 and Part 292, An agency may not conduct or sponsor, and a person is not required to respond to, a collection of information unless it displays a currently valid OMB control number. The estimated burden for completing the FERC Form No. 556, including gathering and reporting information, is as follows: 3 hours for self-certification of a small power production facility, 8 hours for self-certifications of a cogeneration facility, 6 hours for an application for Commission certification of a small power production facility, and 50 hours for an application for Commission certification of a cogeneration facility. Send comments regarding this burden estimate or any aspect of this collection of information, including suggestions for reducing this burden, to the following: Information Clearance Officer, Office of the Executive Director (ED-32), Federal Energy Regulatory Commission, 888 First Street N.E., Washington, DC 20426 (DataClearance@ferc.gov); and Desk Officer for FERC, Office of Information and Regulatory Affairs, Office of Management and Budget, Washington, DC 20503 (oira submission@omb.eop.gov). Include the Control No. 1902-0075 in any correspondence.

Electronic Filing (eFiling)

To electronically file your Form 556, visit the Commission's QF website at www.ferc.gov/QF and click the eFiling link.

If you are eFiling your first document, you will need to register with your name, email address, mailing address, and phone number. If you are registering on behalf of an employer, then you will also need to provide the employer name, alternate contact name, alternate contact phone number and and alternate contact email.

Once you are registered, log in to eFiling with your registered email address and the password that you created at registration. Follow the instructions. When prompted, select one of the following QF-related filing types, as appropriate, from the Electric or General filing category.

Filing category	Filing Type as listed in eFiling	Description
	(Fee) Application for Commission Cert. as Cogeneration QF	Use to submit an application for Commission certification or Commission recertification of a cogeneration facility as a QF.
	(Fee) Application for Commission Cert. as Small Power QF	Use to submit an application for Commission certification or Commission recertification of a small power production facility as a QF.
	Self-Certification Notice (QF, EG, FC)	Use to submit a notice of self- certification of your facility (cogeneration or small power production) as a QF.
Electric	Self-Recertification of Qualifying Facility (QF)	Use to submit a notice of self- recertification of your facility (cogeneration or small power production) as a QF.
	Supplemental Information or Request	Use to correct or supplement a Form 556 that was submitted with errors or omissions, or for which Commission staff has requested additional information. Do not use this filing type to report new changes to a facility or its ownership; rather, use a self- recertification or Commission recertification to report such changes.
General	(Fee) Petition for Declaratory Order (not under FPA Part 1)	Use to submit a petition for declaratory order granting a waiver of Commission QF regulations pursuant to 18 C.F.R. §§ 292.204(a) (3) and/or 292.205(c). A Form 556 is not required for a petition for declaratory order unless Commission recertification is being requested as part of the petition.

You will be prompted to submit your filing fee, if applicable, during the electronic submission process. Filing fees can be paid via electronic bank account debit or credit card.

During the eFiling process, you will be prompted to select your file(s) for upload from your computer.

FERC Form 556 Page 3 - Instructions

Filing Fee

No filing fee is required if you are submitting a self-certification or self-recertification of your facility as a QF pursuant to 18 C.F.R. § 292.207(a).

A filing fee is required if you are filing either of the following:

(1) an application for Commission certification or recertification of your facility as a QF pursuant to 18 C.F.R. § 292.207(b), or

(2) a petition for declaratory order granting waiver pursuant to 18 C.F.R. §§ 292.204(a)(3) and/or 292.205(c).

The current fees for applications for Commission certifications and petitions for declaratory order can be found by visiting the Commission's QF website at www.ferc.gov/QF and clicking the Fee Schedule link.

You will be prompted to submit your filing fee, if applicable, during the electronic filing process described on page 2.

Required Notice to Utilities and State Regulatory Authorities

Pursuant to 18 C.F.R. § 292.207(a)(ii), you must provide a copy of your self-certification or request for Commission certification to the utilities with which the facility will interconnect and/or transact, as well as to the State regulatory authorities of the states in which your facility and those utilities reside. Links to information about the regulatory authorities in various states can be found by visiting the Commission's QF website at www.ferc.gov/QF and clicking the Notice Requirements link.

What to Expect From the Commission After You File

An applicant filing a Form 556 electronically will receive an email message acknowledging receipt of the filing and showing the docket number assigned to the filing. Such email is typically sent within one business day, but may be delayed pending confirmation by the Secretary of the Commission of the contents of the filing.

An applicant submitting a self-certification of QF status should expect to receive no documents from the Commission, other than the electronic acknowledgement of receipt described above. Consistent with its name, a self-certification is a certification by the applicant itself that the facility meets the relevant requirements for QF status, and does not involve a determination by the Commission as to the status of the facility. An acknowledgement of receipt of a self-certification, in particular, does not represent a determination by the Commission with regard to the QF status of the facility. An applicant self-certifying may, however, receive a rejection, revocation or deficiency letter if its application is found, during periodic compliance reviews, not to comply with the relevant requirements.

An applicant submitting a request for Commission certification will receive an order either granting or denying certification of QF status, or a letter requesting additional information or rejecting the application. Pursuant to 18 C.F.R. § 292.207(b)(3), the Commission must act on an application for Commission certification within 90 days of the later of the filing date of the application or the filing date of a supplement, amendment or other change to the application.

Waiver Requests

18 C.F.R. § 292.204(a)(3) allows an applicant to request a waiver to modify the method of calculation pursuant to 18 C.F.R. § 292.204(a)(2) to determine if two facilities are considered to be located at the same site, for good cause. 18 C.F.R. § 292.205(c) allows an applicant to request waiver of the requirements of 18 C.F.R. §§ 292.205(a) and (b) for operating and efficiency upon a showing that the facility will produce significant energy savings. A request for waiver of these requirements must be submitted as a petition for declaratory order, with the appropriate filing fee for a petition for declaratory order. Applicants requesting Commission recertification as part of a request for waiver of one of these requirements should electronically submit their completed Form 556 along with their petition for declaratory order, rather than filing their Form 556 as a separate request for Commission recertification. Only the filing fee for the petition for declaratory order must be paid to cover both the waiver request and the request for recertification if such requests are made simultaneously.

18 C.F.R. § 292.203(d)(2) allows an applicant to request a waiver of the Form 556 filing requirements, for good cause. Applicants filing a petition for declaratory order requesting a waiver under 18 C.F.R. § 292.203(d)(2) do not need to complete or submit a Form 556 with their petition.

FERC Form 556 Page 4 - Instructions

Geographic Coordinates

If a street address does not exist for your facility, then line 3c of the Form 556 requires you to report your facility's geographic coordinates (latitude and longitude). Geographic coordinates may be obtained from several different sources. You can find links to online services that show latitude and longitude coordinates on online maps by visiting the Commission's QF webpage at www.ferc.gov/QF and clicking the Geographic Coordinates link. You may also be able to obtain your geographic coordinates from a GPS device, Google Earth (available free at https://earth.google.com), a property survey, various engineering or construction drawings, a property deed, or a municipal or county map showing property lines.

Filing Privileged Data or Critical Energy Infrastructure Information in a Form 556

The Commission's regulations provide procedures for applicants to either (1) request that any information submitted with a Form 556 be given privileged treatment because the information is exempt from the mandatory public disclosure requirements of the Freedom of Information Act, 5 U.S.C. § 552, and should be withheld from public disclosure; or (2) identify any documents containing critical energy infrastructure information (CEII) as defined in 18 C.F.R. § 388.113 that should not be made public.

If you are seeking privileged treatment or CEII status for any data in your Form 556, then you must follow the procedures in 18 C.F.R. § 388.112. See www.ferc.gov/help/filing-guide/file-ceii.asp for more information.

Among other things (see 18 C.F.R. § 388.112 for other requirements), applicants seeking privileged treatment or CEII status for data submitted in a Form 556 must prepare and file both (1) a complete version of the Form 556 (containing the privileged and/or CEII data), and (2) a public version of the Form 556 (with the privileged and/or CEII data redacted). Applicants preparing and filing these different versions of their Form 556 must indicate below the security designation of this version of their document. If you are *not* seeking privileged treatment or CEII status for any of your Form 556 data, then you should not respond to any of the items on this page.

Non-Public: Applicant is seeking privileged treatment and/or CEII status for data contained in the Form 556 lines indicated below. This non-public version of the applicant's Form 556 contains all data, including the data that is redacted in the (separate) public version of the applicant's Form 556.
 Public (redacted): Applicant is seeking privileged treatment and/or CEII status for data contained in the Form 556 lines indicated below. This public version of the applicants's Form 556 contains all data except for data from the lines indicated below, which has been redacted.
Privileged : Indicate below which lines of your form contain data for which you are seeking privileged treatment
Critical Energy Infrastructure Information (CEII): Indicate below which lines of your form contain data for which you are seeking CEII status

The eFiling process described on page 2 will allow you to identify which versions of the electronic documents you submit are public, privileged and/or CEII. The filenames for such documents should begin with "Public", "Priv", or "CEII", as applicable, to clearly indicate the security designation of the file. Both versions of the Form 556 should be unaltered PDF copies of the Form 556, as available for download from www.ferc.gov/QF. To redact data from the public copy of the submittal, simply omit the relevant data from the Form. For numerical fields, leave the redacted fields blank. For text fields, complete as much of the field as possible, and replace the redacted portions of the field with the word "REDACTED" in brackets. Be sure to identify above all fields which contain data for which you are seeking non-public status.

The Commission is not responsible for detecting or correcting filer errors, including those errors related to security designation. If your documents contain sensitive information, make sure they are filed using the proper security designation.

FEDERAL ENERGY REGULATORY COMMISSION WASHINGTON, DC

OMB Control # 1902-0075 Expiration 06/30/2019

Form 556 Certification of Qualifying Facility (QF) Status for a Small Power Production or Cogeneration Facility

1b Applicant street address c/o Cube Hydro P 2 Bethesda Metro Suite 1330	artners, LLC			
1c City	*	1d State/provi	nce	
Bethesda		MD		
1e Postal code 20814	1f Country (if not United States)		1g Telephone number 240-482-2714	
1h Has the instant facility	ever previously been certified as a QI	F? Yes 🛛 N	lo 🗌	
1i If yes, provide the docl	ket number of the last known QF filing	pertaining to th	is facility: QF16 - 1309 - 000	
1j Under which certificati	on process is the applicant making th	is filing?		
Notice of self-certific (see note below)	ration \square Ap	pplication for Co e; see "Filing Fee	mmission certification (requires filing " section on page 3)	
QF status. A notice of	f self-certification does not establish a tion to verify compliance. See the "W	proceeding, and		
1k What type(s) of QF status is the applicant seeking for its facility? (check all that apply)				
Qualifying small power production facility status Qualifying cogeneration facility status				
11 What is the purpose and expected effective date(s) of this filing?				
Original certification	; facility expected to be installed by	ar	nd to begin operation on	
(5-11) (5)	ously certified facility to be effective o hange(s) below, and describe change		aneous section starting on page 19)	
☑ Name change an	d/or other administrative change(s)			
Change in owner	rship			
☐ Change(s) affecti	ng plant equipment, fuel use, power p	production capa	city and/or cogeneration thermal outpu	
Supplement or correction to a previous filing submitted on				
(describe the supplement or correction in the Miscellaneous section starting on page 19)				
to the extent possible	explaining any special circumstances	in the Miscellan		
The instant facility complies with the Commission's QF requirements by virtue of a waiver of certain regulations previously granted by the Commission in an order dated orders in the Miscellaneous section starting on page 19)				
The instant facility would comply with the Commission's QF requirements if a petition for waiver submitted concurrently with this application is granted				
employment of un	complies with the Commission's regulique or innovative technologies not c	ontemplated by		

FERC Form 556 Page 6 - All Facilities

	2a Name of contact person Eli Hopson			2b Telephone number 240-482-2714		
Contact Information	2c Which of the following describes the contact person's relationship to the applicant? (check one)					
	Applicant (self) Employee, owner or partner of applicant authorized to represent the applicant					
	Employee of a company affiliated with the applicant authorized to represent the applicant on this matter Lawyer, consultant, or other representative authorized to represent the applicant on this matter					
Ē				The same of the sa		
for	2d Company or organization name Cube Hydro Partners, LLC	(if applicant is an individual	, cneck here and	skip to line 2e)		
드		V 40 V 40			-	
act	2e Street address (if same as Applica	ant, check here and skip to I	ine 3a)		0	
nt						
ပိ						
	2f City		2g State/provi	nce		
	2h Postal code	2i Country (if not United S	tates)			
_	3a Facility name					
<u>.</u> 0	Falls					
cat	3b Street address (if a street address does not exist for the facility, check here and skip to line 3c) ∑					
ŏ					0	
0						
ty Identification and Location	then you must specify the latitude the following formula to convert degrees + (minutes/60) + (secon provided a street address for you	de and longitude coordinate to decimal degrees from de ds/3600). See the "Geogra or facility in line 3b, then spe	es of the facility i egrees, minutes phic Coordinate	ur facility by checking the box in line 3b, in degrees (to three decimal places). Use and seconds: decimal degrees = 1st section on page 4 for help. If you graphic coordinates below is optional.		
Jer	Longitude West (-)	.075 degrees	Latitude	South (-) 35.944 degrees		
2	3d City (if unincorporated, check he	re and enter nearest city) 🔀	3e State/pro	ovince		
≝	Badin		North Car	colina		
Facilit	3f County (or check here for indepen	ndent city) 3g	Country (if not	United States)	6	
ш	Stanly				•	
	Identify the electric utilities that are c	ontemplated to transact wi	th the facility.			
es	4a Identify utility interconnecting with the facility					
Ξ	Duke Energy Carolinas and Duke Energy Progress					
Ę	4b Identify utilities providing wheel	ing service or check here if i	none 🛛		60	
g		-			•	
ij	4c Identify utilities purchasing the u	seful electric power output	or check here if	none 🔀	a	
sa(The state of the s	• Parameter (1997) - Parameter			9	
Transacting Utilities	4d Identify utilities providing supple	ementary power, backup po	wer, maintenan	ce power, and/or interruptible power	a	
<u>~</u>	service or check here if none				U	

A

	6a	Describe t	he primary energy input: (c	heck one ma	ain c	ategory and, if ap	plicable, o	ne subcate	gory)	
		☐ Bioma	ss (specify)	⊠R	ene	wable resources (s	specify)	☐ Geoth	nermal	
			Landfill gas		\boxtimes	Hydro power - riv	⁄er	☐ Fossil	fuel (spec	ify)
	e.		Manure digester gas			Hydro power - tio	dal		Coal (not	waste)
			Municipal solid waste			Hydro power - wa	ave		Fuel oil/d	iesel
			Sewage digester gas			Solar - photovolt	aic		Natural g	as (not waste)
			Wood			Solar - thermal			Other fos	
			Other biomass (describe on	page 19)		Wind			(describe	on page 19)
		☐ Waste	(specify type below in line (ib)		Other renewable (describe on pag		Other	(describe	on page 19)
	6b	If you spec	cified "waste" as the primary	energy inp	ut ir	ı line 6a, indicate 1	the type of	f waste fuel	used: (che	eck one)
		☐ Wast	e fuel listed in 18 C.F.R. § 29	2.202(b) (sp	ecif	y one of the follow	ving)			
			Anthracite culm produced	prior to July	/ 23,	, 1985				
			Anthracite refuse that has ash content of 45 percent		heat	content of 6,000	Btu or less	per pound	and has a	n average
			Bituminous coal refuse that average ash content of 25				9,500 Btu _l	per pound o	r less and	has an
nput	201883		Top or bottom subbitumin determined to be waste by (BLM) or that is located on the applicant shows that t	the United non-Federa	Sta l or	tes Department of non-Indian lands	f the Interi outside of	or's Bureau BLM's juriso	of Land M liction, pr	anagement ovided that
Energy Input	Ĭ		Coal refuse produced on F BLM or that is located on n applicant shows that the la	on-Federal	or r	on-Indian lands o	utside of E	BLM's jurisdi	ction, pro	
Ш			Lignite produced in associ as a result of such a mining		ne p	roduction of mon	tan wax ar	nd lignite th	at becom	es exposed
			Gaseous fuels (except natu	ıral gas and	synt	thetic gas from co	al) (descrit	be on page	19)	
20			Waste natural gas from gas C.F.R. § 2.400 for waste nat compliance with 18 C.F.R.	tural gas; inc						
			Materials that a governme	nt agency h	as c	ertified for disposa	al by comb	oustion (des	cribe on p	age 19)
			Heat from exothermic read	tions (descr	ibe	on page 19)	□ R	esidual hea	t (describe	on page 19)
			Used rubber tires] Plastic ma	teri	als 🔲 Ro	efinery off-	-gas	☐ Petro	oleum coke
		facilit	r waste energy input that hay industry (describe in the l of commercial value and exi	Miscellaneo	us se	ection starting on	page 19; ii	nclude a dis	cussion of	
	бс	energy inp	e average energy input, calo outs, and provide the related i. For any oil or natural gas t	d percentage	e of	the total average	annual en	ergy input t		
				Anı	nual	average energy	ĵ	Percentage	of total	
			Fuel			or specified fuel		nnual energ		
			Natural gas			0	Btu/h		0 %	
			Oil-based fuels			0	Btu/h		0 %	
			Coal			0	Btu/h		0 %	

FERC Form 556

Indicate the maximum gross and maximum net electric power production capacity of the facility at the point(s) of delivery by completing the worksheet below. Respond to all items. If any of the parasitic loads and/or losses identified in lines 7b through 7e are negligible, enter zero for those lines.

7a The maximum gross power production capacity at the terminals of the individual generator(s) under the most favorable anticipated design conditions	30,000 kW
7b Parasitic station power used at the facility to run equipment which is necessary and integral to the power production process (boiler feed pumps, fans/blowers, office or maintenance buildings directly related to the operation of the power generating facility, etc.). If this facility includes non-power production processes (for instance, power consumed by a cogeneration facility's thermal host), do not include any power consumed by the non-power production activities in your reported parasitic station power.	100
and addition being the addition for the total	1.1 kW
7c Electrical losses in interconnection transformers	o kW
7d Electrical losses in AC/DC conversion equipment, if any	o kW
7e Other interconnection losses in power lines or facilities (other than transformers and AC/DC conversion equipment) between the terminals of the generator(s) and the point of interconnection with the utility	112 kW
7f Total deductions from gross power production capacity = $7b + 7c + 7d + 7e$	
	113.1 kW
7g Maximum net power production capacity = 7a - 7f	
1 1	29,886.9 kW

7h Description of facility and primary components: Describe the facility and its operation. Identify all boilers, heat recovery steam generators, prime movers (any mechanical equipment driving an electric generator), electrical generators, photovoltaic solar equipment, fuel cell equipment and/or other primary power generation equipment used in the facility. Descriptions of components should include (as applicable) specifications of the nominal capacities for mechanical output, electrical output, or steam generation of the identified equipment. For each piece of equipment identified, clearly indicate how many pieces of that type of equipment are included in the plant, and which components are normally operating or normally in standby mode. Provide a description of how the components operate as a system. Applicants for cogeneration facilities do not need to describe operations of systems that are clearly depicted on and easily understandable from a cogeneration facility's attached mass and heat balance diagram; however, such applicants should provide any necessary description needed to understand the sequential operation of the facility depicted in their mass and heat balance diagram. If additional space is needed, continue in the Miscellaneous section starting on page 19.

Falls Dam is a concrete gravity structure. The development consists of a nonoverflow gravity section, a Stoney gate-controlled spillway section, a Tainter gate-controlled spillway section, a trash gate section, and an integral intake/ powerhouse section. The non-overflow gravity section extends from the north end of the spillway section to the river abutment.

The spillway section consists of a Stoney gate section, a Tainter gate section, and a trash gate. There are ten Stoney gates and two Tainter gates to release surplus water during storm or flooding events. The ten Stoney gates are operated by individually fixed electrically powered screw-stem hoists from the spillway deck. Four of the Stoney gates may be remotely operated from the dispatch center in Alcoa, Tennessee, and also manually at the site. The two Tainter gates are operated by a movable, electrically powered hoist from the deck. The trash gate is locally operated by a rising screw stem hoist.

The powerhouse and intake form a single structural unit integral with the dam. The powerhouse is located between the south end of the gate-controlled spillway section and the river abutment. The structure consists of an integral reinforced concrete and concrete gravity substructure and a brick superstructure. The intake structure includes trashracks and six headgates.

Additional facility information is included in the miscellaneous section.



Information Required for Small Power Production Facility

If you indicated in line 1k that you are seeking qualifying small power production facility status for your facility, then you must respond to the items on this page. Otherwise, skip page 10.

mu:	st respond to the items on this page. C	merwise, skip page 10.		\$0.4500000000000000000000000000000000000
	Pursuant to 18 C.F.R. § 292.204(a), t with the power production capacit resource, are owned by the same p megawatts. To demonstrate comp from this size limitation under the (Pub. L. 101-575, 104 Stat. 2834 (19 through 8e below (as applicable).	y of any other small pow erson(s) or its affiliates, a lliance with this size limi Solar, Wind, Waste, and (ver production facilities that us and are located at the same site tation, or to demonstrate that y Seothermal Power Production	e the same energy e, may not exceed 80 your facility is exempt Incentives Act of 1990
	8a Identify any facilities with elect equipment of the instant facility, ar at least a 5 percent equity interest.			
e G	Check here if no such facilities exist	. 🛛		
of Complian Limitations	Facility location (city or county, state)	Root docket # (if any)	Common owner(s)	Maximum net power production capacity
ati	1)	QF		kW
F E	2)	QF -		kW
o Li	3)	QF -		kW
tio! Siz	Check here and continue in th	e Miscellaneous section	starting on page 19 if addition	al space is needed
Certification of Compliance with Size Limitations	8b The Solar, Wind, Waste, and Ge exemption from the size limitations. Are you seeking exemption from the Yes (continue at line 8c be	s in 18 C.F.R. § 292.204(a ne size limitations in 18 C elow)) for certain facilities that were L.F.R. § 292.204(a) by virtue of t No (skip lines 8c through t	certified prior to 1995. he Incentives Act? Be)
	8c Was the original notice of self-c before December 31, 1994? Yes		n for Commission Certification	or the facility filed on or
	8d Did construction of the facility	commence on or before	December 31, 1999? Yes	No 🗌
	8e If you answered No in line 8d, in the facility, taking into account all facility a brief narrative explanation in the particular, describe why construction toward completion of the facility.	actors relevant to constr Miscellaneous section st	uction? Yes \(\) No \(\) If yo arting on page 19 of the const	ou answered Yes, provide ruction timeline (in
Certification of Compliance vith Fuel Use Requirements	Pursuant to 18 C.F.R. § 292.204(b), of amounts, for only the following purprevention of unanticipated equipment the public health, safety, or welfare used for these purposes may not experiod beginning with the date the	rposes: ignition; start-up ment outages; and allevi , which would result fror sceed 25 percent of the t	e; testing; flame stabilization; co ation or prevention of emerge on electric power outages. The cotal energy input of the facility	ontrol use; alleviation or ncies, directly affecting amount of fossil fuels during the 12-month
Rec	9a Certification of compliance with	18 C.F.R. § 292.204(b) w	rith respect to uses of fossil fue	ıl:
on c Use	Applicant certifies that the	facility will use fossil fuel	s <i>exclusively</i> for the purposes li	sted above.
cati Iel I	9b Certification of compliance with	n 18 C.F.R. § 292.204(b) w	vith respect to amount of fossil	fuel used annually:
Certific	Applicant certifies that the a percent of the total energy facility first produces electri	input of the facility durin		

Information Required for Cogeneration Facility

If you indicated in line 1k that you are seeking qualifying cogeneration facility status for your facility, then you must respond to the items on pages 11 through 13. Otherwise, skip pages 11 through 13.

	energy (such as heat or use of energy. Pursuant cycle cogeneration facili thermal application or p	92.202(c), a cogeneration facility produces electric energy and forms of useful thermal steam) used for industrial, commercial, heating, or cooling purposes, through the sequential to 18 C.F.R. § 292.202(s), "sequential use" of energy means the following: (1) for a topping-ty, the use of reject heat from a power production process in sufficient amounts in a rocess to conform to the requirements of the operating standard contained in 18 C.F.R. § ottoming-cycle cogeneration facility, the use of at least some reject heat from a thermal or power production.
	10a What type(s) of cog	eneration technology does the facility represent? (check all that apply)
	☐ Topping-cycle	cogeneration Bottoming-cycle cogeneration
	other requirements balance diagram do meet certain requir	te the sequential operation of the cogeneration process, and to support compliance with a such as the operating and efficiency standards, include with your filing a mass and heat epicting average annual operating conditions. This diagram must include certain items and rements, as described below. You must check next to the description of each requirement at you have complied with these requirements.
	Check to certify compliance with indicated requirement	Requirement
ration 1		Diagram must show orientation within system piping and/or ducts of all prime movers, heat recovery steam generators, boilers, electric generators, and condensers (as applicable), as well as any other primary equipment relevant to the cogeneration process.
gene natior		Any average annual values required to be reported in lines 10b, 12a, 13a, 13b, 13d, 13f, 14a, 15b, 15d and/or 15f must be computed over the anticipated hours of operation.
General Cogeneration Information		Diagram must specify all fuel inputs by fuel type and average annual rate in Btu/h. Fuel for supplementary firing should be specified separately and clearly labeled. All specifications of fuel inputs should use lower heating values.
ene		Diagram must specify average gross electric output in kW or MW for each generator.
G		Diagram must specify average mechanical output (that is, any mechanical energy taken off of the shaft of the prime movers for purposes not directly related to electric power generation) in horsepower, if any. Typically, a cogeneration facility has no mechanical output.
		At each point for which working fluid flow conditions are required to be specified (see below), such flow condition data must include mass flow rate (in lb/h or kg/s), temperature (in °F, R, °C or K), absolute pressure (in psia or kPa) and enthalpy (in Btu/lb or kJ/kg). Exception: For systems where the working fluid is <i>liquid only</i> (no vapor at any point in the cycle) and where the type of liquid and specific heat of that liquid are clearly indicated on the diagram or in the Miscellaneous section starting on page 19, only mass flow rate and temperature (not pressure and enthalpy) need be specified. For reference, specific heat at standard conditions for pure liquid water is approximately 1.002 Btu/ (lb*R) or 4.195 kJ/(kg*K).
		Diagram must specify working fluid flow conditions at input to and output from each steam turbine or other expansion turbine or back-pressure turbine.
r L		Diagram must specify working fluid flow conditions at delivery to and return from each thermal application.
		Diagram must specify working fluid flow conditions at make-up water inputs.

LINC I C	HIT 336 Page 12 - Cogeneration Facilities
	EPAct 2005 cogeneration facilities: The Energy Policy Act of 2005 (EPAct 2005) established a new section 210(n) of the Public Utility Regulatory Policies Act of 1978 (PURPA), 16 USC 824a-3(n), with additional requirements for any qualifying cogeneration facility that (1) is seeking to sell electric energy pursuant to section 210 of PURPA and (2) was either not a cogeneration facility on August 8, 2005, or had not filed a self-certification or application for Commission certification of QF status on or before February 1, 2006. These requirements were implemented by the Commission in 18 C.F.R. § 292.205(d). Complete the lines below, carefully following the instructions, to demonstrate whether these additional requirements apply to your cogeneration facility and, if so, whether your facility complies with such requirements.
	11a Was your facility operating as a qualifying cogeneration facility on or before August 8, 2005? Yes No
	11b Was the initial filing seeking certification of your facility (whether a notice of self-certification or an application for Commission certification) filed on or before February 1, 2006? Yes No
S	If the answer to either line 11a or 11b is Yes, then continue at line 11c below. Otherwise, if the answers to both lines 11a and 11b are No, skip to line 11e below.
Energy Output from Cogeneration Facilities	11c With respect to the design and operation of the facility, have any changes been implemented on or after February 2, 2006 that affect general plant operation, affect use of thermal output, and/or increase net power production capacity from the plant's capacity on February 1, 2006?
n F	Yes (continue at line 11d below)
neratio	No. Your facility is not subject to the requirements of 18 C.F.R. § 292.205(d) at this time. However, it may be subject to to these requirements in the future if changes are made to the facility. At such time, the applicant would need to recertify the facility to determine eligibility. Skip lines 11d through 11j.
oger	11d Does the applicant contend that the changes identified in line 11c are not so significant as to make the facility a "new" cogeneration facility that would be subject to the 18 C.F.R. § 292.205(d) cogeneration requirements?
from C	Yes. Provide in the Miscellaneous section starting on page 19 a description of any relevant changes made to the facility (including the purpose of the changes) and a discussion of why the facility should not be considered a "new" cogeneration facility in light of these changes. Skip lines 11e through 11j.
utput .	No. Applicant stipulates to the fact that it is a "new" cogeneration facility (for purposes of determining the applicability of the requirements of 18 C.F.R. § 292.205(d)) by virtue of modifications to the facility that were initiated on or after February 2, 2006. Continue below at line 11e.
у О	11e Will electric energy from the facility be sold pursuant to section 210 of PURPA?
nerg	Yes. The facility is an EPAct 2005 cogeneration facility. You must demonstrate compliance with 18 C.F.R. § 292.205(d)(2) by continuing at line 11f below.
of Er	No. Applicant certifies that energy will <i>not</i> be sold pursuant to section 210 of PURPA. Applicant also certifies its understanding that it must recertify its facility in order to determine compliance with the requirements of 18 C.F.R. § 292.205(d) <i>before</i> selling energy pursuant to section 210 of PURPA in the future. Skip lines 11f through 11j.
	11f Is the net power production capacity of your cogeneration facility, as indicated in line 7g above, less than or equal to 5,000 kW?
	Yes, the net power production capacity is less than or equal to 5,000 kW. 18 C.F.R. § 292.205(d)(4) provides a rebuttable presumption that cogeneration facilities of 5,000 kW and smaller capacity comply with the requirements for fundamental use of the facility's energy output in 18 C.F.R. § 292.205(d)(2). Applicant certifies its understanding that, should the power production capacity of the facility increase above 5,000 kW, then the facility must be recertified to (among other things) demonstrate compliance with 18 C.F.R. § 292.205(d)(2). Skip lines 11g through 11j.
	No, the net power production capacity is greater than 5,000 kW. Demonstrate compliance with the requirements for fundamental use of the facility's energy output in 18 C.F.R. § 292.205(d)(2) by continuing on the next page at line 11g.

18 C.F.R. § 292.205(d)(2) requires that the electrical, thermal, chemical and mechanical output of an EPAct 2005 cogeneration facility is used fundamentally for industrial, commercial, residential or institutional purposes and is not intended fundamentally for sale to an electric utility, taking into account technological, efficiency, economic, and variable thermal energy requirements, as well as state laws applicable to sales of electric energy from a qualifying facility to its host facility. If you were directed on the previous page to respond to the items on this page, then your facility is an EPAct 2005 cogeneration facility that is subject to this "fundamental use" requirement.

The Commission's regulations provide a two-pronged approach to demonstrating compliance with the requirements for fundamental use of the facility's energy output. First, the Commission has established in 18 C.F.R. § 292.205(d)(3) a "fundamental use test" that can be used to demonstrate compliance with 18 C.F.R. § 292.205(d)(2). Under the fundamental use test, a facility is considered to comply with 18 C.F.R. § 292.205(d)(2) if at least 50 percent of the facility's total annual energy output (including electrical, thermal, chemical and mechanical energy output) is used for industrial, commercial, residential or institutional purposes.

Second, an applicant for a facility that does not pass the fundamental use test may provide a narrative explanation of and support for its contention that the facility nonetheless meets the requirement that the electrical, thermal, chemical and mechanical output of an EPAct 2005 cogeneration facility is used fundamentally for industrial, commercial, residential or institutional purposes and is not intended fundamentally for sale to an electric utility, taking into account technological, efficiency, economic, and variable thermal energy requirements, as well as state laws applicable to sales of electric energy from a qualifying facility to its host facility.

Complete lines 11g through 11j below to determine compliance with the fundamental use test in 18 C.F.R. § 292.205(d)(3). Complete lines 11g through 11j even if you do not intend to rely upon the fundamental use test to demonstrate compliance with 18 C.F.R. § 292.205(d)(2).

11g Amount of electrical, thermal, chemical and mechanical energy output (net of internal generation plant losses and parasitic loads) expected to be used annually for industrial, commercial, residential or institutional purposes and not sold to an electric utility	MWh
11h Total amount of electrical, thermal, chemical and mechanical energy expected to be sold to an electric utility	MWh
11i Percentage of total annual energy output expected to be used for industrial, commercial, residential or institutional purposes and not sold to a utility = 100 * 11g /(11g + 11h)	0 %

11j Is the response in line 11i greater than or equal to 50 percent?

Yes. Your facility complies with 18 C.F.R. § 292.205(d)(2) by virtue of passing the fundamental use test provided in 18 C.F.R. § 292.205(d)(3). Applicant certifies its understanding that, if it is to rely upon passing the fundamental use test as a basis for complying with 18 C.F.R. § 292.205(d)(2), then the facility must comply with the fundamental use test both in the 12-month period beginning with the date the facility first produces electric energy, and in all subsequent calendar years.

No. Your facility does not pass the fundamental use test. Instead, you must provide in the Miscellaneous section starting on page 19 a narrative explanation of and support for why your facility meets the requirement that the electrical, thermal, chemical and mechanical output of an EPAct 2005 cogeneration facility is used fundamentally for industrial, commercial, residential or institutional purposes and is not intended fundamentally for sale to an electric utility, taking into account technological, efficiency, economic, and variable thermal energy requirements, as well as state laws applicable to sales of electric energy from a QF to its host facility. Applicants providing a narrative explanation of why their facility should be found to

comply with 18 C.F.R. § 292.205(d)(2) in spite of non-compliance with the fundamental use test may want to review paragraphs 47 through 61 of Order No. 671 (accessible from the Commission's QF website at www.ferc.gov/QF), which provide discussion of the facts and circumstances that may support their explanation. Applicant should also note that the percentage reported above will establish the standard that that facility must comply with, both for the 12-month period beginning with the date the facility first produces electric energy, and in all subsequent calendar years. See Order No. 671 at paragraph 51. As such, the applicant should make sure that it reports appropriate values on lines 11g and 11h above to serve as the relevant annual standard, taking into account expected variations in production conditions.



thermal output

Usefulness of Topping-Cycle Thermal Output

Information Required for Topping-Cycle Cogeneration Facility

If you indicated in line 10a that your facility represents topping-cycle cogeneration technology, then you must respond to the items on pages 14 and 15. Otherwise, skip pages 14 and 15.

	The thermal energy output of a topping-cycle cogeneration facility is the net energy made available to an industrial
	or commercial process or used in a heating or cooling application. Pursuant to sections 292.202(c), (d) and (h) of the
	Commission's regulations (18 C.F.R. §§ 292.202(c), (d) and (h)), the thermal energy output of a qualifying topping-
ı	cycle cogeneration facility must be useful. In connection with this requirement, describe the thermal output of the
	topping-cycle cogeneration facility by responding to lines 12a and 12b below.
1	

12a Identify and describe each thermal host, and specify the annual average rate of thermal output made available to each host for each use. For hosts with multiple uses of thermal output, provide the data for each use in separate rows.
Average annual rate of

	Name of entity (thermal host) taking thermal output	Thermal host's relationship to facility; Thermal host's use of thermal output	attributable to use (net of heat contained in process return or make-up water)
1)		Select thermal host's relationship to facility	
		Select thermal host's use of thermal output	Btu/h
2)		Select thermal host's relationship to facility	
		Select thermal host's use of thermal output	Btu/h
3)		Select thermal host's relationship to facility	
<i>-</i> ,		Select thermal host's use of thermal output	Btu/h
4)		Select thermal host's relationship to facility	
		Select thermal host's use of thermal output	Btu/h
5)		Select thermal host's relationship to facility	
, , , , , , , , , , , , , , , , , , ,	* 100	Select thermal host's use of thermal output	Btu/h
6)		Select thermal host's relationship to facility	027 =15/G - 2-8
-,		Select thermal host's use of thermal output	·Btu/h

Check here and continue in the Miscellaneous section starting on page 19 if additional space is needed

12b Demonstration of usefulness of thermal output: At a minimum, provide a brief description of each use of the thermal output identified above. In some cases, this brief description is sufficient to demonstrate usefulness. However, if your facility's use of thermal output is not common, and/or if the usefulness of such thermal output is not reasonably clear, then you must provide additional details as necessary to demonstrate usefulness. Your application may be rejected and/or additional information may be required if an insufficient showing of usefulness is made. (Exception: If you have previously received a Commission certification approving a specific use of thermal output related to the instant facility, then you need only provide a brief description of that use and a reference by date and docket number to the order certifying your facility with the indicated use. Such exemption may not be used if any change creates a material deviation from the previously authorized use.) If additional space is needed, continue in the Miscellaneous section starting on page 19.



Page 15 - Top	ping-Cycle Cogeneration Faciliti
ng-cycle technology must demonstrate, efficiency standard. Section 292.205(a) plishes the operating standard for toppin no less than 5 percent of the total energificiency standard for topping-cycle cog 13, 1980: the useful power output of the than 42.5 percent of the total energy in coutput is less than 15 percent of the torgy input of natural gas and oil to the facing and/or efficiency standards, or to delan the date that installation commenced	(1) of the Commission's ng-cycle cogeneration facilities: gy output. Section 292.205(a)(2) eneration facilities for which e facility plus one-half the usefu put of natural gas and oil to the tal energy output of the facility, cility. To demonstrate monstrate that your facility is
represents both topping-cycle and bot ugh 13! below considering only the ene fyour facility. Your mass and heat balar stem components are for which portion	rgy inputs and outputs nce diagram must make clear
eful thermal energy output made availa	
	Btu/
t electrical energy output	1-146
rom kW to Btu/b	kW
	0 Btu/
echanical energy output taken directly o	
not directly related to power production	ו
	hp
from hp to Btu/h	_
and the state of t	0 Btu/
argy input from natural gas and oil	D4/
* 13a / (13a ± 13c ± 13a)	Btu/
1547 (1547 1567 156)	0 %
* (0.5*13a + 13c + 13e) / 13f	
Suppose S	0 %
ls the operating value shown in line 13a	greater than or equal to 5%?
dard) No (does not compl	
ent form commence on or after March 1	3, 1980?
fficiency requirements of 18 C.F.R. § 292 uirement by responding to line 13k or 1:	
e efficiency standard. Skip lines 13k and	131.
	ng-cycle technology must demonstrate and efficiency standard. Section 292.205(a plishes the operating standard for topping no less than 5 percent of the total energy ficiency standard for topping-cycle cog 13, 1980: the useful power output of the than 42.5 percent of the total energy in output is less than 15 percent of the torgy input of natural gas and oil to the faing and/or efficiency standards, or to delean the date that installation commence of the date that the date that installation commence of the date that the date that installation commence of the date that the

131 Compliance with efficiency standard (for high operating value): If the operating value shown in line 13g is greater than or equal to 15%, then indicate below whether the efficiency value shown in line 13h is greater than or

No (does not comply with efficiency standard)

☐ No (does not comply with efficiency standard)

Yes (complies with efficiency standard)

Yes (complies with efficiency standard)

equal to 42.5%:

lar 05 2021

Information Required for Bottoming-Cycle Cogeneration Facility

If you indicated in line 10a that your facility represents bottoming-cycle cogeneration technology, then you must respond to the items on pages 16 and 17. Otherwise, skip pages 16 and 17.

1	which at least some of the reject heat the Commission's regulations (18 C.F. cycle cogeneration facility must be us at least some of the reject heat is used	ming-cycle cogeneration facility is the energy relatives then used for power production. Pursuant to see R. § 292.202(c) and (e)), the thermal energy output seful. In connection with this requirement, described for power production by responding to lines 14a and least the set and see the energy of the set and see the energy responding to lines.	tions 292.202(c) and (e) of of a qualifying bottoming- the process(es) from which and 14b below.
Jsefulness of Bottoming-Cycle Thermal Output	14a Identify and describe each therm host. For hosts with multiple bo separate rows. Name of entity (thermal host) performing the process from which at least some of the reject heat is used for power production Check here and continue in the dentified above. In some cases, this is acility's process is not common, and/must provide additional details as necessary and information may be required or eviously received a Commission cerfacility, then you need only provide a to the order certifying your facility with	Thermal host's relationship to facility; Thermal host's relationship to facility; Thermal host's process type Select thermal host's relationship to facility Select thermal host's process type Select thermal host's relationship to facility Select thermal host's process type Select thermal host's relationship to facility Select thermal host's relationship to facility Select thermal host's relationship to facility Select thermal host's relationship to facility Select thermal host's relationship to facility Select thermal host's relationship to facility Select thermal host's relationship to facility Select thermal host's relationship to facility Select thermal host's relationship to facility Select thermal host's relationship to facility Select thermal host's relationship to facility Select thermal host's relationship to facility Select thermal host's relationship to facility Select thermal host's process type e Miscellaneous section starting on page 19 if additional space is needed, continue in the Miscellaneous section in the Miscellaneous section of that process and a reference by the the indicated process. Such exemption may not in the Miscellaneous section in the Miscel	ription of each process ress. However, if your asonably clear, then you amay be rejected and/or (Exception: If you have cess related to the instant date and docket number oe used if any material

Bottoming-Cycle Operating and Efficiency Value Calculation

Applicants for facilities representing bottoming-cycle technology and for which installation commenced on or after March 13, 1990 must demonstrate compliance with the bottoming-cycle efficiency standards. Section 292.205(b) of the Commission's regulations (18 C.F.R. § 292.205(b)) establishes the efficiency standard for bottoming-cycle cogeneration facilities: the useful power output of the facility must be no less than 45 percent of the energy input of natural gas and oil for supplementary firing. To demonstrate compliance with the bottoming-cycle efficiency standard (if applicable), or to demonstrate that your facility is exempt from this standard based on the date that installation of the facility began, respond to lines 15a through 15h below.

If you indicated in line 10a that your facility represents both topping-cycle and bottoming-cycle cogeneration technology, then respond to lines 15a through 15h below considering only the energy inputs and outputs attributable to the bottoming-cycle portion of your facility. Your mass and heat balance diagram must make clear which mass and energy flow values and system components are for which portion of the cogeneration system (topping or bottoming).

15a Did installation of the facility in its current form commence on or after March 13, 1980?	
Yes. Your facility is subject to the efficiency requirement of 18 C.F.R. § 292.205(b). Downth the efficiency requirement by responding to lines 15b through 15h below.	Demonstrate compliance
No. Your facility is exempt from the efficiency standard. Skip the rest of page 17.	
15b Indicate the annual average rate of net electrical energy output	kW
15c Multiply line 15b by 3,412 to convert from kW to Btu/h	₀ Btu/h
15d Indicate the annual average rate of mechanical energy output taken directly off of the shaft of a prime mover for purposes not directly related to power production (this value is usually zero)	hp
15e Multiply line 15d by 2,544 to convert from hp to Btu/h	0 Btu/h
15f Indicate the annual average rate of supplementary energy input from natural gas or oil	Btu/h
15g Bottoming-cycle efficiency value = 100 * (15c + 15e) / 15f	0 %

Certificate of Completeness, Accuracy and Authority

Applicant must certify compliance with and understanding of filing requirements by checking next to each item below and signing at the bottom of this section. Forms with incomplete Certificates of Completeness, Accuracy and Authority will be rejected by the Secretary of the Commission.

Signer identified below certifies the following: (check all items and applicable subitems)

He or she has provided all of the required information for certification, and the provided information is true to the best of his or her knowledge and belief. He or she possess full power and authority to sign the filling; as required by Rule 2005(a)(3) of the Commission of the following (10.6 F. B. 5.785.7805(c)(3)) has replaced to the following (10.6 F. B. 5.785.7805(c)(3)).					
He or she possess full power and authority to sign the filing; as required by Rule 2005(a)(3) of the Commissi	on's Rules of				
He or she possess full power and authority to sign the filing; as required by Rule 2005(a)(3) of the Commission's Rules of Practice and Procedure (18 C.F.R. § 385.2005(a)(3)), he or she is one of the following: (check one)					
The person on whose behalf the filing is made					
An officer of the corporation, trust, association, or other organized group on behalf of which the filing is made					
\Box An officer, agent, or employe of the governmental authority, agency, or instrumentality on behalf of filing is made	f which the				
A representative qualified to practice before the Commission under Rule 2101 of the Commission's Practice and Procedure (18 C.F.R. § 385.2101) and who possesses authority to sign	Rules of				
He or she has reviewed all automatic calculations and agrees with their results, unless otherwise noted in the Miscellaneous section starting on page 19.	ne				
He or she has provided a copy of this Form 556 and all attachments to the utilities with which the facility with interconnect and transact (see lines 4a through 4d), as well as to the regulatory authorities of the states in variation facility and those utilities reside. See the Required Notice to Public Utilities and State Regulatory Authorities page 3 for more information.	vhich the				
Provide your signature, address and signature date below. Rule 2005(c) of the Commission's Rules of Practice at Procedure (18 C.F.R. § 385.2005(c)) provides that persons filing their documents electronically may use typed ch representing his or her name to sign the filed documents. A person filing this document electronically should si typing his or her name) in the space provided below.	aracters				
Your Signature Your address Date					
Eli Hopson 2 Bethesda Metro Center, Suite					
Cube Hydro Partners, LLC 1330, Bethesda, MD 20814 3/9/2018	*				
Audit Notes					
	9				
3					
	:				
Commission Staff Use Only:					

Miscellaneous

Use this space to provide any information for which there was not sufficient space in the previous sections of the form to provide. For each such item of information *clearly identify the line number that the information belongs to*. You may also use this space to provide any additional information you believe is relevant to the certification of your facility.

Your response below is not limited to one page. Additional page(s) will automatically be inserted into this form if the length of your response exceeds the space on this page. Use as many pages as you require.

Section 11 (continued):

Cube Yadkin Generation LLC (Applicant) submits this self-recertifiation to (i) notify the Commission of a change in the ownership of the Falls facility, and (ii) provide contact information for Applicant. Pursuant to a transaction authorized by the Commission in Docket No. EC16-157 (Transaction), on February 1, 2017, Applicant acquired 100% of the ownership interests in the Falls facility from Alcoa Power Generating, Inc. (APGI). See Alcoa Power Generating Inc., et al., 156 FERC ¶ 62,237 (2016). As a result of the Transaction, the Falls facility is now directly owned by Applicant, which is an indirect wholly-owned subsidiary of Helix Partners LLC. APGI no longer owns any interests in the facility.

Section 5b (continued):

Cube Hydro Carolinas LLC is a wholly-owned direct subsidiary of Helix Partners LLC, which is indirectly controlled by I Squared Capital, a private equity investment manager having a series of limited partnership investment and co-investment funds operated by a general partner that is wholly controlled by I Squared Capital.

Section 7h (continued):

The Falls powerhouse contains one 10,410 kW S. Morgan Smith vertical Francis turbine unit (Unit 1) and two 11,190 kW Allis Chalmers propeller-type turbine units (Units 2 and 3), each operating under a net head of 54.0 ft, and direct-connected to generators having a total capacity of 33,750 kW (Unit 1 @ 8,750 kW, Units 2 and 3 @ 12,500 kW) for a total generating capacity of 31,130 kW as limited by the generator for Unit 1 and the turbines for Units 2 and 3. The Falls Development has a total hydraulic capacity of 8,570 cfs.

The Falls facility also includes the limited and discrete interconnection equipment necessary to connect the facility to the transmission grid.

OFFICIAL COPY

VanNess Feldman ...

1050 Thomas Jefferson Street, NW Seventh Floor Washington, DC 20007 (202) 298-1800 Phone (202) 338-2416 Fax

Julia S. Wood (202) 298-1938 jsw@vnf.com

March 9, 2018

Chief Clerk's Office North Carolina Utilities Commission 4325 Mail Service Center Raleigh, NC 27699-4300 MAR 1 6 2018

Clerk's Office

V.C. Utilities Commission

RE: Cube Yadkin Generation LLC

NCUC Docket No. SP-9172-Sub 0 NCUC Docket No. SP-8758-Sub 0 FERC Docket No. QF16-1310

Dear Chief Clerk:

Pursuant to the Federal Energy Regulatory Commission's ("FERC") regulations, 18 C.F.R. § 292.207(c)(1), please find enclosed the Form 556 of Cube Yadkin Generation LLC filed with FERC today in FERC Docket No.QF16-1310. The attached Form 556 was filed with FERC to reflect a change in ownership of the certified facility. We respectfully request the North Carolina Utilities Commission ("NCUC") please accept for filing the attached Form 556 under NCUC Docket Nos. SP-9172-Sub 0; and SP-8758-Sub 0.

If you have any questions or need further information, please contact the undersigned at the information above.

Respectfully submitted,

Julia S. Wood

Counsel for Cube Yadkin Generation LLC

V-2 5. W -1

FEDERAL ENERGY REGULATORY COMMISSION WASHINGTON, DC

OMB Control # 1902-0075 Expiration 06/30/2019

Form 556 Certification of Qualifying Facility (QF) Status for a Small Power Production or Cogeneration Facility

General

Questions about completing this form should be sent to Form556@ferc.gov. Information about the Commission's QF program, answers to frequently asked questions about QF requirements or completing this form, and contact information for QF program staff are available at the Commission's QF website, www.ferc.gov/QF. The Commission's QF website also provides links to the Commission's QF regulations (18 C.F.R. § 131.80 and Part 292), as well as other statutes and orders pertaining to the Commission's QF program.

Who Must File

Any applicant seeking QF status or recertification of QF status for a generating facility with a net power production capacity (as determined in lines 7a through 7g below) greater than 1000 kW must file a self-certification or an application for Commission certification of QF status, which includes a properly completed Form 556. Any applicant seeking QF status for a generating facility with a net power production capacity 1000 kW or less is exempt from the certification requirement, and is therefore not required to complete or file a Form 556. See 18 C.F.R. § 292.203.

How to Complete the Form 556

This form is intended to be completed by responding to the items in the order they are presented, according to the instructions given. If you need to back-track, you may need to clear certain responses before you will be allowed to change other responses made previously in the form. If you experience problems, click on the nearest help button () for assistance, or contact Commission staff at Form556@ferc.gov.

Certain lines in this form will be automatically calculated based on responses to previous lines, with the relevant formulas shown. You must respond to all of the previous lines within a section before the results of an automatically calculated field will be displayed. If you disagree with the results of any automatic calculation on this form, contact Commission staff at Form556@ferc.gov to discuss the discrepancy before filling.

You must complete all lines in this form unless instructed otherwise. Do not alter this form or save this form in a different format. Incomplete or altered forms, or forms saved in formats other than PDF, will be rejected.

How to File a Completed Form 556

Applicants are required to file their Form 556 electronically through the Commission's eFiling website (see instructions on page 2). By filing electronically, you will reduce your filing burden, save paper resources, save postage or courier charges, help keep Commission expenses to a minimum, and receive a much faster confirmation (via an email containing the docket number assigned to your facility) that the Commission has received your filing.

If you are simultaneously filing both a waiver request and a Form 556 as part of an application for Commission certification, see the "Waiver Requests" section on page 3 for more information on how to file.

Paperwork Reduction Act Notice

This form is approved by the Office of Management and Budget. Compliance with the information requirements established by the FERC Form No. 556 is required to obtain or maintain status as a QF. See 18 C.F.R. § 131.80 and Part 292. An agency may not conduct or sponsor, and a person is not required to respond to, a collection of information unless it displays a currently valid OMB control number. The estimated burden for completing the FERC Form No. 556, including gathering and reporting information, is as follows: 3 hours for self-certification of a small power production facility, 8 hours for self-certifications of a cogeneration facility, 6 hours for an application for Commission certification of a small power production facility, and 50 hours for an application for Commission certification of a cogeneration facility. Send comments regarding this burden estimate or any aspect of this collection of information, including suggestions for reducing this burden, to the following: Information Clearance Office, Office of the Executive Director (ED-32), Federal Energy Regulatory Commission, 888 First Street N.E., Washington, DC 20426 (DataClearance@ferc.gov); and Desk Officer for FERC, Office of Information and Regulatory Affairs, Office of Management and Budget, Washington, DC 20503 (oira_submission@omb.eop.gov). Include the Control No. 1902-0075 in any correspondence.

FERC Form 556 Page 2 - Instructions

Electronic Filing (eFiling)

To electronically file your Form 556, visit the Commission's QF website at www.ferc.gov/QF and click the eFiling link.

If you are eFiling your first document, you will need to register with your name, email address, mailing address, and phone number. If you are registering on behalf of an employer, then you will also need to provide the employer name, alternate contact name, alternate contact phone number and and alternate contact email.

Once you are registered, log in to eFiling with your registered email address and the password that you created at registration. Follow the instructions. When prompted, select one of the following QF-related filing types, as appropriate, from the Electric or General filing category.

Filing category	Filing Type as listed in eFiling	Description
	(Fee) Application for Commission Cert. as Cogeneration QF	Use to submit an application for Commission certification or Commission recertification of a cogeneration facility as a QF.
	(Fee) Application for Commission Cert. as Small Power QF	Use to submit an application for Commission certification or Commission recertification of a small power production facility as a QF.
	Self-Certification Notice (QF, EG, FC)	Use to submit a notice of self- certification of your facility (cogeneration or small power production) as a QF.
Electric	Self-Recertification of Qualifying Facility (QF)	Use to submit a notice of self- recertification of your facility (cogeneration or small power production) as a QF.
	Supplemental Information or Request	Use to correct or supplement a Form 556 that was submitted with errors or omissions, or for which Commission staff has requested additional information. Do not use this filing type to report new changes to a facility or its ownership; rather, use a self-recertification or Commission recertification to report such changes.
General	(Fee) Petition for Declaratory Order (not under FPA Part 1)	Use to submit a petition for declaratory order granting a waiver of Commission QF regulations pursuant to 18 C.F.R. §§ 292.204(a) (3) and/or 292.205(c). A Form 556 is not required for a petition for declaratory order unless Commission recertification is being requested as part of the petition.

You will be prompted to submit your filing fee, if applicable, during the electronic submission process. Filing fees can be paid via electronic bank account debit or credit card.

During the eFiling process, you will be prompted to select your file(s) for upload from your computer.

FERC Form 556 Page 3 - Instructions

Filing Fee

No filing fee is required if you are submitting a self-certification or self-recertification of your facility as a QF pursuant to 18 C.F.R. § 292.207(a).

A filing fee is required if you are filing either of the following:

(1) an application for Commission certification or recertification of your facility as a QF pursuant to 18 C.F.R. § 292.207(b), or

(2) a petition for declaratory order granting waiver pursuant to 18 C.F.R. §§ 292.204(a)(3) and/or 292.205(c).

The current fees for applications for Commission certifications and petitions for declaratory order can be found by visiting the Commission's QF website at www.ferc.gov/QF and clicking the Fee Schedule link.

You will be prompted to submit your filing fee, if applicable, during the electronic filing process described on page 2.

Required Notice to Utilities and State Regulatory Authorities

Pursuant to 18 C.F.R. § 292.207(a)(ii), you must provide a copy of your self-certification or request for Commission certification to the utilities with which the facility will interconnect and/or transact, as well as to the State regulatory authorities of the states in which your facility and those utilities reside. Links to information about the regulatory authorities in various states can be found by visiting the Commission's QF website at www.ferc.gov/QF and clicking the Notice Requirements link.

What to Expect From the Commission After You File

An applicant filing a Form 556 electronically will receive an email message acknowledging receipt of the filing and showing the docket number assigned to the filing. Such email is typically sent within one business day, but may be delayed pending confirmation by the Secretary of the Commission of the contents of the filing.

An applicant submitting a self-certification of QF status should expect to receive no documents from the Commission, other than the electronic acknowledgement of receipt described above. Consistent with its name, a self-certification is a certification by the applicant itself that the facility meets the relevant requirements for QF status, and does not involve a determination by the Commission as to the status of the facility. An acknowledgement of receipt of a self-certification, in particular, does not represent a determination by the Commission with regard to the QF status of the facility. An applicant self-certifying may, however, receive a rejection, revocation or deficiency letter if its application is found, during periodic compliance reviews, not to comply with the relevant requirements.

An applicant submitting a request for Commission certification will receive an order either granting or denying certification of QF status, or a letter requesting additional information or rejecting the application. Pursuant to 18 C.F.R. § 292.207(b)(3), the Commission must act on an application for Commission certification within 90 days of the later of the filing date of the application or the filing date of a supplement, amendment or other change to the application.

Waiver Requests

18 C.F.R. § 292.204(a)(3) allows an applicant to request a waiver to modify the method of calculation pursuant to 18 C.F.R. § 292.204(a)(2) to determine if two facilities are considered to be located at the same site, for good cause. 18 C.F.R. § 292.205(c) allows an applicant to request waiver of the requirements of 18 C.F.R. §§ 292.205(a) and (b) for operating and efficiency upon a showing that the facility will produce significant energy savings. A request for waiver of these requirements must be submitted as a petition for declaratory order, with the appropriate filling fee for a petition for declaratory order. Applicants requesting Commission recertification as part of a request for waiver of one of these requirements should electronically submit their completed Form 556 along with their petition for declaratory order, rather than filing their Form 556 as a separate request for Commission recertification. Only the filing fee for the petition for declaratory order must be paid to cover both the waiver request and the request for recertification if such requests are made simultaneously.

18 C.F.R. § 292.203(d)(2) allows an applicant to request a waiver of the Form 556 filing requirements, for good cause. Applicants filing a petition for declaratory order requesting a waiver under 18 C.F.R. § 292.203(d)(2) do not need to complete or submit a Form 556 with their petition.

Geographic Coordinates

If a street address does not exist for your facility, then line 3c of the Form 556 requires you to report your facility's geographic coordinates (latitude and longitude). Geographic coordinates may be obtained from several different sources. You can find links to online services that show latitude and longitude coordinates on online maps by visiting the Commission's QF webpage at www.ferc.gov/QF and clicking the Geographic Coordinates link. You may also be able to obtain your geographic coordinates from a GPS device, Google Earth (available free at http://earth.google.com/), a property survey, various engineering or construction drawings, a property deed, or a municipal or county map showing property lines.

Filing Privileged Data or Critical Energy Infrastructure Information in a Form 556

The Commission's regulations provide procedures for applicants to either (1) request that any information submitted with a Form 556 be given privileged treatment because the information is exempt from the mandatory public disclosure requirements of the Freedom of Information Act, 5 U.S.C. § 552, and should be withheld from public disclosure; or (2) identify any documents containing critical energy infrastructure information (CEII) as defined in 18 C.F.R. § 388.113 that should not be made public.

If you are seeking privileged treatment or CEII status for any data in your Form 556, then you must follow the procedures in 18 C.F.R. § 388.112. See www.ferc.gov/help/filing-quide/file-ceii.asp for more information.

Among other things (see 18 C.F.R. § 388.112 for other requirements), applicants seeking privileged treatment or CEII status for data submitted in a Form 556 must prepare and file both (1) a complete version of the Form 556 (containing the privileged and/or CEII data), and (2) a public version of the Form 556 (with the privileged and/or CEII data redacted). Applicants preparing and filing these different versions of their Form 556 must indicate below the security designation of this version of their document. If you are *not* seeking privileged treatment or CEII status for any of your Form 556 data, then you should not respond to any of the items on this page.

Non-Public: Applicant is seeking privileged treatment and/or CEII status for data contained in the Form 556 lines indicated below. This non-public version of the applicant's Form 556 contains all data, including the data that is redacted in the (separate) public version of the applicant's Form 556.
Public (redacted): Applicant is seeking privileged treatment and/or CEII status for data contained in the Form 556 lines indicated below. This public version of the applicants's Form 556 contains all data except for data from the lines indicated below, which has been redacted.
Privileged: Indicate below which lines of your form contain data for which you are seeking privileged treatment
Critical Energy Infrastructure Information (CEII): Indicate below which lines of your form contain data for which you are seeking CEII status

The eFiling process described on page 2 will allow you to identify which versions of the electronic documents you submit are public, privileged and/or CEII. The filenames for such documents should begin with "Public", "Priv", or "CEII", as applicable, to clearly indicate the security designation of the file. Both versions of the Form 556 should be unaltered PDF copies of the Form 556, as available for download from www.ferc.gov/QF. To redact data from the public copy of the submittal, simply omit the relevant data from the Form. For numerical fields, leave the redacted fields blank. For text fields, complete as much of the field as possible, and replace the redacted portions of the field with the word "REDACTED" in brackets. Be sure to identify above all fields which contain data for which you are seeking non-public status.

The Commission is not responsible for detecting or correcting filer errors, including those errors related to security designation. If your documents contain sensitive information, make sure they are filed using the proper security designation.

FEDERAL ENERGY REGULATORY COMMISSION WASHINGTON, DC

OMB Control # 1902-0075 Expiration 06/30/2019

Form 556 Certification of Qualifying Facility (QF) Status for a Small Power Production or Cogeneration Facility

<pre>1b Applicant street addre c/o Cube Hydro Pa 2 Bethesda Metro Suite 1330</pre>	artners, LLC		
1c City		1d State/provi	nce
Bethesda		MD	
1e Postal code 20814	1f Country (if not United States)		1g Telephone number 240-482-2714
1h Has the instant facility	vever previously been certified as a Q	F? Yes⊠ N	lo 🗌
1i If yes, provide the doc	ket number of the last known QF filing	g pertaining to th	nis facility: QF16 - 1310 - 000
1j Under which certificat	ion process is the applicant making th	nis filing?	
Notice of self-certific (see note below)	cation \Box^{A}_{fe}	pplication for Co ee; see "Filing Fee	mmission certification (requires filing " section on page 3)
QF status. A notice o	of self-certification does not establish a ation to verify compliance. See the "W	a proceeding, and	
	atus is the applicant seeking for its fac	ility? (check all th	nat apply)
Qualifying small po	wer production facility status 🔲 🔾	ualifying cogene	eration facility status
11 What is the purpose a	nd expected effective date(s) of this fi	ling?	
Original certification	n; facility expected to be installed by	a	nd to begin operation on
1	iously certified facility to be effective change(s) below, and describe chang	***************************************	laneous section starting on page 19)
Name change a	nd/or other administrative change(s)		
☐ Change(s) affect	ting plant equipment, fuel use, power	production capa	acity and/or cogeneration thermal output
Supplement or corre	ection to a previous filing submitted o	n	
(describe the supple	ement or correction in the Miscellaneo	ous section starti	ng on page 19)
to the extent possible	e, explaining any special circumstance	s in the Miscella	, , ,
previously grante	y complies with the Commission's QF d by the Commission in an order date cellaneous section starting on page 19	ed	virtue of a waiver of certain regulations (specify any other relevant waiver
	y would comply with the Commission a this application is granted	's QF requiremer	nts if a petition for waiver submitted
employment of u		contemplated b	special circumstances, such as the y the structure of this form, that make lescribe in Misc. section starting on p. 19)

FERC Form 556 Page 6 - All Facilities

	2a Name of contact person			2b Telephone number	
	Eli Hopson			240-482-2714	
	2c Which of the following describes t	the contact person's relation	onship to the ap	plicant? (check one)	
				zed to represent the applicant	
C	Employee of a company affiliate	•		, , , ,	
ati	Lawyer, consultant, or other rep				
] <u>E</u>	2d Company or organization name (if applicant is an individual, check here and skip to line 2e)				
Employee of a company affiliated with the applicant authorized to represent the applicant on this matter Lawyer, consultant, or other representative authorized to represent the applicant on this matter 2d Company or organization name (if applicant is an individual, check here and skip to line 2e) Cube Hydro Partners, LLC 2e Street address (if same as Applicant, check here and skip to line 3a)					
					0
ta					
j					
	2f City		2g State/provi	ince	
	2h Postal code	2i Country (if not United)	States)		
l _	3a Facility name				
Ęį	High Rock	×40×40×40×40×40×40×40×40×40×40×40×40×40×			
g	3b Street address (if a street address	does not exist for the faci	lity, check here a	nd skip to line 3c)	0
12					
l D					-
High Rock 3b Street address (if a street address does not exist for the facility, check here and skip to line 3c Geographic coordinates: If you indicated that no street address exists for your facility by coordinates of the facility in degrees (to the following formula to convert to decimal degrees from degrees, minutes and seconds: degrees + (minutes/60) + (seconds/3600). See the "Geographic Coordinates" section on provided a street address for your facility in line 3b, then specifying the geographic coordinates Latitude North (+) South (-) South (-) Salisbury 3e State/province North Carolina North				in degrees (to three decimal places). Use and seconds: decimal degrees =	
ıtil	☐ Fast (+)		echynig the geo	☑ North (±)	
Jen	Longitude West (-) 80	.233 degrees	Latitude	☐ South (-) 35.601 degrees	
) S	3d City (if unincorporated, check he	re and enter nearest city).[3e State/p	rovince	
Ħ	Salisbury		North Ca	rolina	
Faci	3f County (or check here for indepen	ndent city) 🗌 39	Country (if not	United States)	0
	Davidson				╛
	Identify the electric utilities that are c	ontemplated to transact v	vith the facility.		
ies	4a Identify utility interconnecting w	ith the facility			1
三	Duke Energy Carolinas and Duke Energy Progress]
ヺ	4b Identify utilities providing wheel	4b Identify utilities providing wheeling service or check here if none			
ng					
acti	4c Identify utilities purchasing the u	seful electric power outpu	it or check here i	f none 🔀	0
ns					١.
Transacting Utilities	4d Identify utilities providing supple service or check here if none		ower, maintena	nce power, and/or interruptible power	0
'	Service of disconnect front				

FERC Form 556 Page 7 - All Facilities

	at least 10 percent equity interest in the facility, the vith the largest equity interest in the facility.	Electric utilit holding	ty or If Ye
	Full legal names of direct owners	compan	y intere
1) Cube Yadkin G	eneration LLC	Yes ⊠ No	
2)		Yes No	□
3)		Yes No	o 🗌 🔙
4)		Yes 🔲 No	□
5)		Yes No	о 🔲
6)		Yes No	o 🛮
7)		Yes No	□
8)		Yes No	• 🔲
			∘ 🔲
10)		Voc 🗔 No	o 🗍
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FERC Form 556 Page 8 - All Facilities

	6a	Describe th	Describe the primary energy input: (check one main category and, if applicable, one subcategory)					
		Biomas	s (specify)	⊠ Rer	ewable resou	rces (specify)	Geothermal	
			andfill gas		∃ Hydro pow	er - river	Fossil fuel (sp	ecify)
		□ N	Manure digester gas] Hydro pow	er - tidal	Coal (no	ot waste)
			Nunicipal solid waste	£] Hydro pow	er - wave	☐ Fuel oil	'diesel
		□ S	ewage digester gas] Solar - phot	tovoltaic	□ Natural	gas (not waste)
		□ V	Vood] Solar - ther	mal		ossil fuel
			Other biomass (describe on	page 19) [] Wind		☐ (describ	e on page 19)
		☐ Waste (specify type below in line 6	b) [Other rene (describe o	wable resource in page 19)	Other (describ	oe on page 19)
	6b	If you spec	ified "waste" as the primary	energy input	in line 6a, ind	licate the type o	f waste fuel used: (c	heck one)
		☐ Waste	e fuel listed in 18 C.F.R. § 29	2.202(b) (spec	ify one of the	following)		
			Anthracite culm produced	prior to July :	23, 1985			
			Anthracite refuse that has ash content of 45 percent	an average he or more	eat content of	6,000 Btu or less	s per pound and has	an average
***************************************			Bituminous coal refuse that average ash content of 25			ent of 9,500 Btu	per pound or less ar	nd has an
nput	Top or bottom subbituminous coal produced on Federal lands or on Indian lands that has been determined to be waste by the United States Department of the Interior's Bureau of Land Manage (BLM) or that is located on non-Federal or non-Indian lands outside of BLM's jurisdiction, provided the applicant shows that the latter coal is an extension of that determined by BLM to be waste						Management provided that	
Energy Input	Coal refuse produced on Federal lands or on Indian lands that has been determined to be waste by BLM or that is located on non-Federal or non-Indian lands outside of BLM's jurisdiction, provided tapplicant shows that the latter is an extension of that determined by BLM to be waste							
ш		Lignite produced in association with the production of montan wax and lignite that becomes exposed as a result of such a mining operation						
		Gaseous fuels (except natural gas and synthetic gas from coal) (describe on page 19)						
			Waste natural gas from ga C.F.R. § 2.400 for waste na compliance with 18 C.F.R.	tural gas; incl				
			Materials that a governme	nt agency has	certified for a	disposal by com	bustion (describe o	n page 19)
			Heat from exothermic read	tions (describ	e on page 19) F	Residual heat (descr	ibe on page 19)
			Used rubber tires] Plastic mat	erials	☐ Refinery of	f-gas 🔲 Pe	troleum coke
		☐ facilit	r waste energy input that he cy industry (describe in the of commercial value and ex	Miscellaneous	section starti	ing on page 19; i	include a discussion	
	6с		e average energy input, calo					
			outs, and provide the relate b. For any oil or natural gas					сшту (18 С.Р.К. 9
			Fuel		ual average er It for specified		Percentage of total annual energy inpu	
			Natural gas		······································	o Btu/h	0 9	\neg
			Oil-based fuels			o Btu/h	0 9	6
			Coal			0 Btu/h	0 %	6
L	L							

Technical Facility Information

Indicate the maximum gross and maximum net electric power production capacity of the facility at the point(s) of delivery by completing the worksheet below. Respond to all items. If any of the parasitic loads and/or losses identified in lines 7b through 7e are negligible, enter zero for those lines.

7a The maximum gross power production capacity at the terminals of the individual generator(s) under the most favorable anticipated design conditions	34,500	kW
7b Parasitic station power used at the facility to run equipment which is necessary and integral to the power production process (boiler feed pumps, fans/blowers, office or maintenance buildings directly related to the operation of the power generating facility, etc.). If this facility includes non-power production processes (for instance, power consumed by a cogeneration facility's thermal host), do not include any power consumed by the non-power production activities in your reported parasitic station power.	3.7	
7c Electrical losses in interconnection transformers		
	0	kW
7d Electrical losses in AC/DC conversion equipment, if any	0	kW
7e Other interconnection losses in power lines or facilities (other than transformers and AC/DC conversion equipment) between the terminals of the generator(s) and the point of interconnection with the utility	O	kW
7f Total deductions from gross power production capacity = 7b + 7c + 7d + 7e	3.7	kW
7g Maximum net power production capacity = 7a - 7f	34,496.3	kW

The Description of facility and primary components: Describe the facility and its operation. Identify all boilers, heat recovery steam generators, prime movers (any mechanical equipment driving an electric generator), electrical generators, photovoltaic solar equipment, fuel cell equipment and/or other primary power generation equipment used in the facility. Descriptions of components should include (as applicable) specifications of the nominal capacities for mechanical output, electrical output, or steam generation of the identified equipment. For each piece of equipment identified, clearly indicate how many pieces of that type of equipment are included in the plant, and which components are normally operating or normally in standby mode. Provide a description of how the components operate as a system. Applicants for cogeneration facilities do not need to describe operations of systems that are clearly depicted on and easily understandable from a cogeneration facility's attached mass and heat balance diagram; however, such applicants should provide any necessary description needed to understand the sequential operation of the facility depicted in their mass and heat balance diagram. If additional space is needed, continue in the Miscellaneous section starting on page 19.

High Rock Dam is a concrete gravity structure. The dam is comprised of two short non- overflow sections, a Stoney gate-controlled spillway section, and an integral intake/powerhouse section.

The non-overflow sections are located at the east end of the powerhouse and at the west end of the gate-controlled spillway. The gate-controlled spillway section includes ten Stoney gates that release surplus water during flood events. The spillway gates are operated locally at the site by fixed individual electrically powered hoists.

The High Rock powerhouse and intake form a single structural unit integral with the dam. It consists of a concrete substructure containing three water passages and a brick superstructure. The intake structure includes trashracks and six headgates.

The High Rock powerhouse contains three 10,970 kilowatt (kW) vertical Francis turbines, each operating under a net head of 55.0 ft, direct-connected to generators having a total capacity of 41,250 kW (Units 1, 2, and 3 @ 13,750 kW), for a total installed capacity of 32,190 kW as limited by the turbines1. The High Rock Development has a total hydraulic capacity of 10,050 cfs.

The High Rock facility also includes the limited and discrete interconnection equipment necessary to connect the facility to the transmission grid.



Information Required for Small Power Production Facility

If you indicated in line 1k that you are seeking qualifying small power production facility status for your facility, then you must respond to the items on this page. Otherwise, skip page 10.

711.0.20	espond to the items on this page. O	mer wise, skip page to.			
	Pursuant to 18 C.F.R. § 292.204(a), the with the power production capacity resource, are owned by the same permegawatts. To demonstrate complifrom this size limitation under the S (Pub. L. 101-575, 104 Stat. 2834 (1991) through 8e below (as applicable).	of any other small powerson(s) or its affiliates, a lance with this size limit olar, Wind, Waste, and G	rer production facilities that use and are located at the same site, tation, or to demonstrate that yo Seothermal Power Production Ir	the same energy may not exceed 80 our facility is exempt acentives Act of 1990	
	8a Identify any facilities with electrequipment of the instant facility, an at least a 5 percent equity interest.	ical generating equipm d for which any of the e	ent located within 1 mile of the ntities identified in lines 5a or 5	electrical generating b, or their affiliates, holds	
G	Check here if no such facilities exist.	\boxtimes			
plian ons	Facility location (city or county, state)	Root docket# (if any)	Common owner(s)	Maximum net power production capacity	
Ed. iii	1)	QF -		, kW	
mi G	2)	QF -		kW	
e Li	3)	QF -		kW	
ation Siza	Check here and continue in the	Miscellaneous section	starting on page 19 if additiona	l space is needed	
Certification of Compliance with Size Limitations	8b The Solar, Wind, Waste, and Gerexemption from the size limitations Are you seeking exemption from the	in 18 C.F.R. § 292.204(a e size limitations in 18 C) for certain facilities that were c	ertified prior to 1995. e Incentives Act?	
	8c Was the original notice of self-certification or application for Commission certification of the facility filed on or before December 31, 1994? Yes No				
	8d Did construction of the facility commence on or before December 31, 1999? Yes No				
	8e If you answered No in line 8d, in the facility, taking into account all fa a brief narrative explanation in the particular, describe why construction toward completion of the facility.	actors relevant to const Miscellaneous section s	ruction? Yes No If yo tarting on page 19 of the constr	u answered Yes, provide uction timeline (in	
Certification of Compliance with Fuel Use Requirements	Pursuant to 18 C.F.R. § 292.204(b), c amounts, for only the following pur prevention of unanticipated equipr the public health, safety, or welfare, used for these purposes may not ex period beginning with the date the	poses: ignition; start-unent outages; and allev which would result fro ceed 25 percent of the	o; testing; flame stabilization; co iation or prevention of emergen m electric power outages. The a total energy input of the facility	ntrol use; alleviation or icies, directly affecting amount of fossil fuels during the 12-month	
of C Rec	9a Certification of compliance with	18 C.F.R. § 292.204(b) v	with respect to uses of fossil fuel	<u>.</u>	
on c Use	Applicant certifies that the f	acility will use fossil fue	ls <i>exclusively</i> for the purposes lis	ted above.	
cati	9b Certification of compliance with	18 C.F.R. § 292.204(b)	with respect to amount of fossil	fuel used annually:	
Certific with Fu		input of the facility duri	ed at the facility will not, in aggr ng the 12-month period beginn rryear thereafter.		

Information Required for Cogeneration Facility

If you indicated in line 1k that you are seeking qualifying cogeneration facility status for your facility, then you must respond to the items on pages 11 through 13. Otherwise, skip pages 11 through 13.

	Pursuant to 18 C.F.R. § 292.202(c), a cogeneration facility produces electric energy and forms of useful thermal energy (such as heat or steam) used for industrial, commercial, heating, or cooling purposes, through the sequential use of energy. Pursuant to 18 C.F.R. § 292.202(s), "sequential use" of energy means the following: (1) for a topping-cycle cogeneration facility, the use of reject heat from a power production process in sufficient amounts in a thermal application or process to conform to the requirements of the operating standard contained in 18 C.F.R. § 292.205(a); or (2) for a bottoming-cycle cogeneration facility, the use of at least some reject heat from a thermal application or process for power production.					
	10a What type(s) of cogeneration technology does the facility represent? (check all that apply)					
	☐ Topping-cycle	cogeneration				
	10b To help demonstrate the sequential operation of the cogeneration process, and to support compliance with other requirements such as the operating and efficiency standards, include with your filing a mass and heat balance diagram depicting average annual operating conditions. This diagram must include certain items and meet certain requirements, as described below. You must check next to the description of each requirement below to certify that you have complied with these requirements.					
	Check to certify					
	compliance with					
	indicated requirement	Requirement				
ration 1		Diagram must show orientation within system piping and/or ducts of all prime movers, heat recovery steam generators, boilers, electric generators, and condensers (as applicable), as well as any other primary equipment relevant to the cogeneration process.				
gene		Any average annual values required to be reported in lines 10b, 12a, 13a, 13b, 13d, 13f, 14a, 15b, 15d and/or 15f must be computed over the anticipated hours of operation.				
General Cogeneration Information		Diagram must specify all fuel inputs by fuel type and average annual rate in Btu/h. Fuel for supplementary firing should be specified separately and clearly labeled. All specifications of fuel inputs should use lower heating values.				
ien(Diagram must specify average gross electric output in kW or MW for each generator.				
ğ		Diagram must specify average mechanical output (that is, any mechanical energy taken off of the shaft of the prime movers for purposes not directly related to electric power generation) in horsepower, if any. Typically, a cogeneration facility has no mechanical output.				
		At each point for which working fluid flow conditions are required to be specified (see below), such flow condition data must include mass flow rate (in-lb/h or kg/s), temperature (in °F, R, °C or K), absolute pressure (in psia or kPa) and enthalpy (in Btu/lb or kJ/kg). Exception: For systems where the working fluid is <i>liquid only</i> (no vapor at any point in the cycle) and where the type of liquid and specific heat of that liquid are clearly indicated on the diagram or in the Miscellaneous section starting on page 19, only mass flow rate and temperature (not pressure and enthalpy) need be specified. For reference, specific heat at standard conditions for pure liquid water is approximately 1.002 Btu/ (lb*R) or 4.195 kJ/(kg*K).				
		Diagram must specify working fluid flow conditions at input to and output from each steam turbine or other expansion turbine or back-pressure turbine.				
		Diagram must specify working fluid flow conditions at delivery to and return from each thermal application.				
		Diagram must specify working fluid flow conditions at make-up water inputs.				

EPAct 2005 cogeneration facilities: The Energy Policy Act of 2005 (EPAct 2005) established a new section 210(n) of the Public Utility Regulatory Policies Act of 1978 (PURPA), 16 USC 824a-3(n), with additional requirements for any qualifying cogeneration facility that (1) is seeking to sell electric energy pursuant to section 210 of PURPA and (2) was either not a cogeneration facility on August 8, 2005, or had not filed a self-certification or application for Commission certification of QF status on or before February 1, 2006. These requirements were implemented by the Commission in 18 C.F.R. § 292.205(d). Complete the lines below, carefully following the instructions, to demonstrate whether these additional requirements apply to your cogeneration facility and, if so, whether your facility complies with such requirements.

11a Was your facility operating as a qualifying cogeneration facility on or before August 8, 2005? Yes No

11b Was the initial filing seeking certification of your facility (whether a notice of self-certification or an application for Commission certification) filed on or before February 1, 2006? Yes No

If the answer to either line 11a or 11b is Yes, then continue at line 11c below. Otherwise, if the answers to both lines 11a and 11b are No, skip to line 11e below.

11c With respect to the design and operation of the facility, have any changes been implemented on or after February 2, 2006 that affect general plant operation, affect use of thermal output, and/or increase net power production capacity from the plant's capacity on February 1, 2006?

Yes (continue at line 11d below)

No. Your facility is not subject to the requirements of 18 C.F.R. § 292.205(d) at this time. However, it may be subject to to these requirements in the future if changes are made to the facility. At such time, the applicant would need to recertify the facility to determine eligibility. Skip lines 11d through 11j.

11d Does the applicant contend that the changes identified in line 11c are not so significant as to make the facility a "new" cogeneration facility that would be subject to the 18 C.F.R. § 292.205(d) cogeneration requirements?

Yes. Provide in the Miscellaneous section starting on page 19 a description of any relevant changes made to the facility (including the purpose of the changes) and a discussion of why the facility should not be considered a "new" cogeneration facility in light of these changes. Skip lines 11e through 11j.

No. Applicant stipulates to the fact that it is a "new" cogeneration facility (for purposes of determining the applicability of the requirements of 18 C.F.R. § 292.205(d)) by virtue of modifications to the facility that were initiated on or after February 2, 2006. Continue below at line 11e.

11e Will electric energy from the facility be sold pursuant to section 210 of PURPA?

Yes. The facility is an EPAct 2005 cogeneration facility. You must demonstrate compliance with 18 C.F.R. § 292.205(d)(2) by continuing at line 11f below.

No. Applicant certifies that energy will *not* be sold pursuant to section 210 of PURPA. Applicant also certifies its understanding that it must recertify its facility in order to determine compliance with the requirements of 18 C.F.R. § 292.205(d) *before* selling energy pursuant to section 210 of PURPA in the future. Skip lines 11f through 11j.

11f Is the net power production capacity of your cogeneration facility, as indicated in line 7g above, less than or equal to 5,000 kW?

Yes, the net power production capacity is less than or equal to 5,000 kW. 18 C.F.R. § 292.205(d)(4) provides a rebuttable presumption that cogeneration facilities of 5,000 kW and smaller capacity comply with the requirements for fundamental use of the facility's energy output in 18 C.F.R. § 292.205(d)(2). Applicant certifies its understanding that, should the power production capacity of the facility increase above 5,000 kW, then the facility must be recertified to (among other things) demonstrate compliance with 18 C.F.R. § 292.205(d)(2). Skip lines 11g through 11).

No, the net power production capacity is greater than 5,000 kW. Demonstrate compliance with the requirements for fundamental use of the facility's energy output in 18 C.F.R. § 292.205(d)(2) by continuing on the next page at line 11g.











Energy Output from Cogeneration Facilities (continued)

EPAct 2005 Requirements for Fundamental Use

Lines 11g through 11k below guide the applicant through the process of demonstrating compliance with the requirements for "fundamental use" of the facility's energy output. 18 C.F.R. § 292.205(d)(2). Only respond to the lines on this page if the instructions on the previous page direct you to do so. Otherwise, skip this page.

18 C.F.R. § 292.205(d)(2) requires that the electrical, thermal, chemical and mechanical output of an EPAct 2005 cogeneration facility is used fundamentally for industrial, commercial, residential or institutional purposes and is not intended fundamentally for sale to an electric utility, taking into account technological, efficiency, economic, and variable thermal energy requirements, as well as state laws applicable to sales of electric energy from a qualifying facility to its host facility. If you were directed on the previous page to respond to the items on this page, then your facility is an EPAct 2005 cogeneration facility that is subject to this "fundamental use" requirement.

The Commission's regulations provide a two-pronged approach to demonstrating compliance with the requirements for fundamental use of the facility's energy output. First, the Commission has established in 18 C.F.R. § 292.205(d)(3) a "fundamental use test" that can be used to demonstrate compliance with 18 C.F.R. § 292.205(d)(2). Under the fundamental use test, a facility is considered to comply with 18 C.F.R. § 292.205(d)(2) if at least 50 percent of the facility's total annual energy output (including electrical, thermal, chemical and mechanical energy output) is used for industrial, commercial, residential or institutional purposes.

Second, an applicant for a facility that does not pass the fundamental use test may provide a narrative explanation of and support for its contention that the facility nonetheless meets the requirement that the electrical, thermal, chemical and mechanical output of an EPAct 2005 cogeneration facility is used fundamentally for industrial, commercial, residential or institutional purposes and is not intended fundamentally for sale to an electric utility, taking into account technological, efficiency, economic, and variable thermal energy requirements, as well as state laws applicable to sales of electric energy from a qualifying facility to its host facility.

Complete lines 11g through 11j below to determine compliance with the fundamental use test in 18 C.F.R. § 292.205(d)(3). Complete lines 11g through 11j even if you do not intend to rely upon the fundamental use test to demonstrate compliance with 18 C.F.R. § 292.205(d)(2).

11g Amount of electrical, thermal, chemical and mechanical energy output (net of internal	
generation plant losses and parasitic loads) expected to be used annually for industrial,	
commercial, residential or institutional purposes and not sold to an electric utility	MWh
11h Total amount of electrical, thermal, chemical and mechanical energy expected to be	
sold to an electric utility	MWh
11i Percentage of total annual energy output expected to be used for industrial,	
commercial, residential or institutional purposes and not sold to a utility	
= 100 * 11g /(11g + 11h)	0.96

11) Is the response in line 11i greater than or equal to 50 percent?

Yes. Your facility complies with 18 C.F.R. § 292.205(d)(2) by virtue of passing the fundamental use test provided in 18 C.F.R. § 292.205(d)(3). Applicant certifies its understanding that, if it is to rely upon passing the fundamental use test as a basis for complying with 18 C.F.R. § 292.205(d)(2), then the facility must comply with the fundamental use test both in the 12-month period beginning with the date the facility first produces electric energy, and in all subsequent calendar years.

No. Your facility does not pass the fundamental use test. Instead, you must provide in the Miscellaneous section starting on page 19 a narrative explanation of and support for why your facility meets the requirement that the electrical, thermal, chemical and mechanical output of an EPAct 2005 cogeneration facility is used fundamentally for industrial, commercial, residential or institutional purposes and is not intended fundamentally for sale to an electric utility, taking into account technological, efficiency, economic, and variable thermal energy requirements, as well as state laws applicable to sales of electric energy from a QF to its host facility. Applicants providing a narrative explanation of why their facility should be found to comply with 18 C.F.R. § 292.205(d)(2) in spite of non-compliance with the fundamental use test may want to review paragraphs 47 through 61 of Order No. 671 (accessible from the Commission's QF website at www.ferc.gov/QF), which provide discussion of the facts and circumstances that may support their explanation. Applicant should also note that the percentage reported above will establish the standard that that facility must comply with, both for the 12-month period beginning with the date the facility first produces electric energy, and in all subsequent calendar years. See Order No. 671 at paragraph 51. As such, the applicant should make sure that it reports appropriate values on lines 11g and 11h above to serve as the relevant annual standard, taking into account expected variations in production conditions.



Information Required for Topping-Cycle Cogeneration Facility

If you indicated in line 10a that your facility represents topping-cycle cogeneration technology, then you must respond to the items on pages 14 and 15. Otherwise, skip pages 14 and 15.

the item	the items on pages 14 and 15. Otherwise, skip pages 14 and 15.					
	The thermal energy output of a topping-cycle cogeneration facility is the net energy made available to an industrial or commercial process or used in a heating or cooling application. Pursuant to sections 292.202(c), (d) and (h) of the Commission's regulations (18 C.F.R. §§ 292.202(c), (d) and (h)), the thermal energy output of a qualifying topping-cycle cogeneration facility must be useful. In connection with this requirement, describe the thermal output of the topping-cycle cogeneration facility by responding to lines 12a and 12b below.					
	12a	12a Identify and describe each thermal host, and specify the annual average rate of thermal output made available to each host for each use. For hosts with multiple uses of thermal output, provide the data for each use in				
		separate rows.		Average annual rate of thermal output attributable to use (net of		
		Name of entity (thermal host) taking thermal output	Thermal host's relationship to facility; Thermal host's use of thermal output	heat contained in process return or make-up water)		
	31		Select thermal host's relationship to facility	,		
	1)		Select thermal host's use of thermal output	Btu/h		
	2)		Select thermal host's relationship to facility			
	<i>L</i>)		Select thermal host's use of thermal output	Btu/h		
Usefulness of Topping-Cycle Thermal Output	3)		Select thermal host's relationship to facility			
g-C t	اد		Select thermal host's use of thermal output	Btu/h		
ric D	4)	·	Select thermal host's relationship to facility			
) pp	-1/		Select thermal host's use of thermal output	Btu/h		
FTC al (5)		Select thermal host's relationship to facility			
E C			Select thermal host's use of thermal output	Btu/h		
es: hei	6)		Select thermal host's relationship to facility			
를 느			Select thermal host's use of thermal output	Btu/h		
sefi		Check here and continue in	the Miscellaneous section starting on page 19 if a	dditional space is needed		
Ď	How not app is m out date use	rmal output identified above. In vever, if your facility's use of ther reasonably clear, then you must dication may be rejected and/or a nade. (Exception: If you have pre- put related to the instant facility, e and docket number to the orde	f thermal output: At a minimum, provide a brief description is sufficient to description is sufficient to description and output is not common, and/or if the usefulness provide additional details as necessary to demonsted additional information may be required if an insufficient of the sufficient of	emonstrate usefulness. ss of such thermal output is strate usefulness. Your ficient showing of usefulness ving a specific use of thermal that use and a reference by uch exemption may not be		

equal to 42.5%:

Yes (complies with efficiency standard)

rm 556	Page 15 - Topping-Cycle Cogeneration Facilities
Applicants for facilities representing topping-cycle technology in cycle operating standard and, if applicable, efficiency standard regulations (18 C.F.R. § 292.205(a)(1)) establishes the operating of the useful thermal energy output must be no less than 5 percent (18 C.F.R. § 292.205(a)(2)) establishes the efficiency standard for installation commenced on or after March 13, 1980: the useful p thermal energy output must (A) be no less than 42.5 percent of the facility; and (B) if the useful thermal energy output is less than 15 be no less than 45 percent of the total energy input of natural gas compliance with the topping-cycle operating and/or efficiency seempt from the efficiency standard based on the date that install below.	Section 292.205(a)(1) of the Commission's tandard for topping-cycle cogeneration facilities: tof the total energy output. Section 292.205(a)(2) topping-cycle cogeneration facilities for which lower output of the facility plus one-half the useful he total energy input of natural gas and oil to the percent of the total energy output of the facility, is and oil to the facility. To demonstrate tandards, or to demonstrate that your facility is
If you indicated in line 10a that your facility represents both topp technology, then respond to lines 13a through 13I below consid attributable to the topping-cycle portion of your facility. Your makes and energy flow values and system components are cogeneration system.	ering only the energy inputs and outputs lass and heat balance diagram must make clear for which portion (topping or bottoming) of the
13a Indicate the annual average rate of useful thermal energy o	
to the host(s), net of any heat contained in condensate return or	
13b Indicate the annual average rate of net electrical energy ou	tput kW
13c Multiply line 13b by 3,412 to convert from kW to Btu/h	⊖ Btu/h
13d Indicate the annual average rate of mechanical energy out of the shaft of a prime mover for purposes not directly related to (this value is usually zero)	
13e Multiply line 13d by 2,544 to convert from hp to Btu/h	0 Btu/h
13f Indicate the annual average rate of energy input from natur	······································
13g Topping-cycle operating value = 100 * 13a / (13a + 13c + 1)	
13h Topping-cycle efficiency value = 100 * (0.5*13a + 13c + 13c	
13i Compliance with operating standard: Is the operating value	
•	o (does not comply with operating standard)
13j Did installation of the facility in its current form commence	on or after March 13, 1980?
Yes. Your facility is subject to the efficiency requiremen compliance with the efficiency requirement by respond	
No. Your facility is exempt from the efficiency standard.	Skip lines 13k and 13l.
13k Compliance with efficiency standard (for low operating val than 15%, then indicate below whether the efficiency value sho	ue): If the operating value shown in line 13g is less wn in line 13h greater than or equal to 45%:
Yes (complies with efficiency standard)	lo (does not comply with efficiency standard)
131 Compliance with efficiency standard (for high operating val	ue): If the operating value shown in line 13g is

greater than or equal to 15%, then indicate below whether the efficiency value shown in line 13h is greater than or

No (does not comply with efficiency standard)

*

Information Required for Bottoming-Cycle Cogeneration Facility

If you indicated in line 10a that your facility represents bottoming-cycle cogeneration technology, then you must respond to the items on pages 16 and 17. Otherwise, skip pages 16 and 17.

which the cycl	ch at least some of the reject he Commission's regulations (18 C. e cogeneration facility must be i	coming-cycle cogeneration facility is the energy rela at is then used for power production. Pursuant to se F.R. § 292.202(c) and (e)), the thermal energy outpu useful. In connection with this requirement, describ ed for power production by responding to lines 14a	ections 292.202(c) and (e) of t of a qualifying bottoming- e the process(es) from whicl
14a		mal host and each bottoming-cycle cogeneration p ottoming-cycle cogeneration processes, provide th	
Mikaraka di naganannaga aprimininga proposaga	Name of entity (thermal host) performing the process from which at least some of the reject heat is used for power production	Thermal host's relationship to facility; Thermal host's process type	Has the energy input to the thermal host been augmented for purposes of increasing power production capacity? (if Yes, describe on p. 19)
1)		Select thermal host's relationship to facility	Yes No
,,		Select thermal host's process type	
2)		Select thermal host's relationship to facility	Yes No
4. }		Select thermal host's process type	
2		Select thermal host's relationship to facility	Yes No
3)		Select thermal host's process type	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1

Check here and continue in the Miscellaneous section starting on page 19 if additional space is needed

14b Demonstration of usefulness of thermal output: At a minimum, provide a brief description of each process identified above. In some cases, this brief description is sufficient to demonstrate usefulness. However, if your facility's process is not common, and/or if the usefulness of such thermal output is not reasonably clear, then you must provide additional details as necessary to demonstrate usefulness. Your application may be rejected and/or additional information may be required if an insufficient showing of usefulness is made. (Exception: If you have previously received a Commission certification approving a specific bottoming-cycle process related to the instant facility, then you need only provide a brief description of that process and a reference by date and docket number to the order certifying your facility with the indicated process. Such exemption may not be used if any material changes to the process have been made.) If additional space is needed, continue in the Miscellaneous section starting on page 19.

Bottoming-Cycle Operating and Efficiency Value Calculation

the Commission's regulations (18 C.F.R. § 292.205(b)) establic cogeneration facilities: the useful power output of the facility of natural gas and oil for supplementary firing. To demonstrate that your facility installation of the facility began, respond to lines 15a through	ty must be no less than 45 percent of the energy input rate compliance with the bottoming-cycle efficiency is exempt from this standard based on the date that
If you indicated in line 10a that your facility represents both technology, then respond to lines 15a through 15h below contributable to the bottoming-cycle portion of your facility. Which mass and energy flow values and system component (topping or bottoming).	onsidering only the energy inputs and outputs Your mass and heat balance diagram must make clear
15a Did installation of the facility in its current form comme	ence on or after March 13, 1980?
Yes. Your facility is subject to the efficiency requirer with the efficiency requirement by responding to lir No. Your facility is exempt from the efficiency stand	
15b Indicate the annual average rate of net electrical energ	Voltout
	~ ·
15c Multiply line 15b by 3,412 to convert from kW to Btu/h	kW
15c Multiply line 15b by 3,412 to convert from kW to Btu/h 15d Indicate the annual average rate of mechanical energy of the shaft of a prime mover for purposes not directly relate	0 Btu/ output taken directly off ed to power production
15c Multiply line 15b by 3,412 to convert from kW to Btu/h 15d Indicate the annual average rate of mechanical energy	0 Btu/ output taken directly off ed to power production hp
15c Multiply line 15b by 3,412 to convert from kW to Btu/h 15d Indicate the annual average rate of mechanical energy of the shaft of a prime mover for purposes not directly relate (this value is usually zero)	output taken directly offed to power production hp Btu/ gy input from natural gas
15c Multiply line 15b by 3,412 to convert from kW to Btu/h 15d Indicate the annual average rate of mechanical energy of the shaft of a prime mover for purposes not directly relate (this value is usually zero) 15e Multiply line 15d by 2,544 to convert from hp to Btu/h 15f Indicate the annual average rate of supplementary ene	output taken directly offed to power production hp gy input from natural gas kW 0 Btu/

Commission Staff Use Only:

Certificate of Completeness, Accuracy and Authority

Applicant must certify compliance with and understanding of filing requirements by checking next to each item below and signing at the bottom of this section. Forms with incomplete Certificates of Completeness, Accuracy and Authority will be rejected by the Secretary of the Commission.

Signer identified below certifies the following: (check all items and applicable subitems) He or she has read the filing, including any information contained in any attached documents, such as cogeneration mass and heat balance diagrams, and any information contained in the Miscellaneous section starting on page 19, and knows its contents. \bowtie He or she has provided all of the required information for certification, and the provided information is true as stated, to the best of his or her knowledge and belief. He or she possess full power and authority to sign the filing; as required by Rule 2005(a)(3) of the Commission's Rules of Practice and Procedure (18 C.F.R. § 385.2005(a)(3)), he or she is one of the following: (check one) ☐ The person on whose behalf the filing is made An officer of the corporation, trust, association, or other organized group on behalf of which the filing is made An officer, agent, or employe of the governmental authority, agency, or instrumentality on behalf of which the filing is made A representative qualified to practice before the Commission under Rule 2101 of the Commission's Rules of Practice and Procedure (18 C.F.R. § 385.2101) and who possesses authority to sign He or she has reviewed all automatic calculations and agrees with their results, unless otherwise noted in the Miscellaneous section starting on page 19. He or she has provided a copy of this Form 556 and all attachments to the utilities with which the facility will interconnect and transact (see lines 4a through 4d), as well as to the regulatory authorities of the states in which the facility and those utilities reside. See the Required Notice to Public Utilities and State Regulatory Authorities section on page 3 for more information. Provide your signature, address and signature date below. Rule 2005(c) of the Commission's Rules of Practice and Procedure (18 C.F.R. § 385.2005(c)) provides that persons filing their documents electronically may use typed characters representing his or her name to sign the filed documents. A person filing this document electronically should sign (by typing his or her name) in the space provided below. Your address Date Your Signature 2 Bethesda Metro Center, Suite Eli Hopson 1330, Bethesda, MD 20814 Cube Hydro Partners, LLC 3/9/2018 **Audit Notes**

FERC Form 556 Page 19 - All Facilities

Miscellaneous

Use this space to provide any information for which there was not sufficient space in the previous sections of the form to provide. For each such item of information *clearly identify the line number that the information belongs to.* You may also use this space to provide any additional information you believe is relevant to the certification of your facility.

Your response below is not limited to one page. Additional page(s) will automatically be inserted into this form if the length of your response exceeds the space on this page. Use as many pages as you require.

Section 11 (continued):

Cube Yadkin Generation LLC (Applicant) submits this self-recertifiation to (i) notify the Commission of a change in the ownership of the High Rock facility, and (ii) provide contact information for Applicant. Pursuant to a transaction authorized by the Commission in Docket No. EC16-157 (Transaction), on February 1, 2017, Applicant acquired 100% of the ownership interests in the High Rock facility from Alcoa Power Generating, Inc. (APGI). See Alcoa Power Generating Inc., et al., 156 FERC ¶ 62,237 (2016). As a result of the Transaction, the High Rock facility is now directly owned by Applicant, which is an indirect wholly-owned subsidiary of Helix Partners LLC. APGI no longer owns any interests in the facility.

Section 5b (continued):

Cube Hydro Carolinas LLC is a wholly-owned direct subsidiary of Helix Partners LLC, which is indirectly controlled by I Squared Capital, a private equity investment manager having a series of limited partnership investment and co-investment funds operated by a general partner that is wholly controlled by I Squared Capital.

OFFICIAL COPY

1050 Thomas Jefferson Street, NW Seventh Floor Washington, DC 20007 (202) 298-1800 Phone (202) 338-2416 Fax

Julia S. Wood (202) 298-1938 jsw@vnf.com

March 9, 2018

Chief Clerk's Office North Carolina Utilities Commission 4325 Mail Service Center Raleigh, NC 27699-4300

VanNess

Feldman ...

RE: **Cube Yadkin Generation LLC**

NCUC Docket No. SP-9172-Sub 1 NCUC Docket No. SP-8759-Sub 0 FERC Docket No. QF16-1311

FILED MAR 1 6 2018

Clerk's Office N.C. Utilities Commission

Dear Chief Clerk:

Pursuant to the Federal Energy Regulatory Commission's ("FERC") regulations, 18 C.F.R. § 292.207(c)(1), please find enclosed the Form 556 of Cube Yadkin Generation LLC filed with FERC today in FERC Docket No.QF16-1311. The attached Form 556 was filed with FERC to reflect a change in ownership of the certified facility. We respectfully request the North Carolina Utilities Commission ("NCUC") please accept for filing the attached Form 556 under NCUC Docket Nos. SP-9172-Sub 1; and SP-8759-Sub 0.

If you have any questions or need further information, please contact the undersigned at the information above.

Respectfully submitted,

Julia S. Wood

Counsel for Cube Yadkin Generation LLC

Vini S. Want

FEDERAL ENERGY REGULATORY COMMISSION WASHINGTON, DC

OMB Control # 1902-0075 Expiration 06/30/2019

Form 556 Certification of Qualifying Facility (QF) Status for a Small Power Production or Cogeneration Facility

General

Questions about completing this form should be sent to Form556@ferc.gov. Information about the Commission's QF program, answers to frequently asked questions about QF requirements or completing this form, and contact information for QF program staff are available at the Commission's QF website, www.ferc.gov/QF. The Commission's QF website also provides links to the Commission's QF regulations (18 C.F.R. § 131.80 and Part 292), as well as other statutes and orders pertaining to the Commission's QF program.

Who Must File

Any applicant seeking QF status or recertification of QF status for a generating facility with a net power production capacity (as determined in lines 7a through 7g below) greater than 1000 kW must file a self-certification or an application for Commission certification of QF status, which includes a properly completed Form 556. Any applicant seeking QF status for a generating facility with a net power production capacity 1000 kW or less is exempt from the certification requirement, and is therefore not required to complete or file a Form 556. See 18 C.F.R. § 292.203.

How to Complete the Form 556

This form is intended to be completed by responding to the items in the order they are presented, according to the instructions given. If you need to back-track, you may need to clear certain responses before you will be allowed to change other responses made previously in the form. If you experience problems, click on the nearest help button () for assistance, or contact Commission staff at Form556@ferc.gov.

Certain lines in this form will be automatically calculated based on responses to previous lines, with the relevant formulas shown. You must respond to all of the previous lines within a section before the results of an automatically calculated field will be displayed. If you disagree with the results of any automatic calculation on this form, contact Commission staff at Form556@ferc.gov to discuss the discrepancy before filing.

You must complete all lines in this form unless instructed otherwise. Do not alter this form or save this form in a different format. Incomplete or altered forms, or forms saved in formats other than PDF, will be rejected.

How to File a Completed Form 556

Applicants are required to file their Form 556 electronically through the Commission's eFiling website (see instructions on page 2). By filing electronically, you will reduce your filing burden, save paper resources, save postage or courier charges, help keep Commission expenses to a minimum, and receive a much faster confirmation (via an email containing the docket number assigned to your facility) that the Commission has received your filing.

If you are simultaneously filing both a waiver request and a Form 556 as part of an application for Commission certification, see the "Waiver Requests" section on page 3 for more information on how to file.

Paperwork Reduction Act Notice

This form is approved by the Office of Management and Budget. Compliance with the information requirements established by the FERC Form No. 556 is required to obtain or maintain status as a QF. See 18 C.F.R. § 131.80 and Part 292. An agency may not conduct or sponsor, and a person is not required to respond to, a collection of information unless it displays a currently valid OMB control number. The estimated burden for completing the FERC Form No. 556, including gathering and reporting information, is as follows: 3 hours for self-certification of a small power production facility, 8 hours for self-certifications of a cogeneration facility, 6 hours for an application for Commission certification of a small power production facility, and 50 hours for an application for Commission certification of a cogeneration facility. Send comments regarding this burden estimate or any aspect of this collection of information, including suggestions for reducing this burden, to the following: Information Clearance Officer, Office of the Executive Director (ED-32), Federal Energy Regulatory Commission, 888 First Street N.E., Washington, DC 20426 (<u>DataClearance@ferc.gov</u>); and Desk Officer for FERC, Office of Information and Regulatory Affairs, Office of Management and Budget, Washington, DC 20503 (oira submission@omb.eop.gov). Include the Control No. 1902-0075 in any correspondence.

Electronic Filing (eFiling)

To electronically file your Form 556, visit the Commission's QF website at www.ferc.gov/QF and click the eFiling link.

If you are eFiling your first document, you will need to register with your name, email address, mailing address, and phone number. If you are registering on behalf of an employer, then you will also need to provide the employer name, alternate contact name, alternate contact phone number and and alternate contact email.

Once you are registered, log in to eFiling with your registered email address and the password that you created at registration. Follow the instructions. When prompted, select one of the following QF-related filing types, as appropriate, from the Electric or General filing category.

Filing category	Filing Type as listed in eFiling	Description
	(Fee) Application for Commission Cert. as Cogeneration QF	Use to submit an application for Commission certification or Commission recertification of a cogeneration facility as a QF.
	(Fee) Application for Commission Cert. as Small Power QF	Use to submit an application for Commission certification or Commission recertification of a small power production facility as a QF.
	Self-Certification Notice (QF, EG, FC)	Use to submit a notice of self- certification of your facility (cogeneration or small power production) as a QF.
Electric	Self-Recertification of Qualifying Facility (QF)	Use to submit a notice of self- recertification of your facility (cogeneration or small power production) as a QF.
	Supplemental Information or Request	Use to correct or supplement a Form 556 that was submitted with errors or omissions, or for which Commission staff has requested additional information. Do not use this filing type to report new changes to a facility or its ownership; rather, use a self-recertification or Commission recertification to report such changes.
General	(Fee) Petition for Declaratory Order (not under FPA Part 1)	Use to submit a petition for declaratory order granting a waiver of Commission QF regulations pursuant to 18 C.F.R. §§ 292.204(a) (3) and/or 292.205(c). A Form 556 is not required for a petition for declaratory order unless Commission recertification is being requested as part of the petition.

You will be prompted to submit your filing fee, if applicable, during the electronic submission process. Filing fees can be paid via electronic bank account debit or credit card.

During the eFiling process, you will be prompted to select your file(s) for upload from your computer.

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Filing Fee

No filing fee is required if you are submitting a self-certification or self-recertification of your facility as a QF pursuant to 18 C.F.R. § 292.207(a).

A filing fee is required if you are filing either of the following:

- (1) an application for Commission certification or recertification of your facility as a QF pursuant to 18 C.F.R. § 292.207(b), or
- (2) a petition for declaratory order granting waiver pursuant to 18 C.F.R. §§ 292.204(a)(3) and/or 292.205(c).

The current fees for applications for Commission certifications and petitions for declaratory order can be found by visiting the Commission's QF website at www.ferc.gov/QF and clicking the Fee Schedule link.

You will be prompted to submit your filing fee, if applicable, during the electronic filing process described on page 2.

Required Notice to Utilities and State Regulatory Authorities

Pursuant to 18 C.F.R. § 292.207(a)(ii), you must provide a copy of your self-certification or request for Commission certification to the utilities with which the facility will interconnect and/or transact, as well as to the State regulatory authorities of the states in which your facility and those utilities reside. Links to information about the regulatory authorities in various states can be found by visiting the Commission's QF website at www.ferc.gov/QF and clicking the Notice Requirements link.

What to Expect From the Commission After You File

An applicant filing a Form 556 electronically will receive an email message acknowledging receipt of the filing and showing the docket number assigned to the filing. Such email is typically sent within one business day, but may be delayed pending confirmation by the Secretary of the Commission of the contents of the filing.

An applicant submitting a self-certification of QF status should expect to receive no documents from the Commission, other than the electronic acknowledgement of receipt described above. Consistent with its name, a self-certification is a certification by the applicant itself that the facility meets the relevant requirements for QF status, and does not involve a determination by the Commission as to the status of the facility. An acknowledgement of receipt of a self-certification, in particular, does not represent a determination by the Commission with regard to the QF status of the facility. An applicant self-certifying may, however, receive a rejection, revocation or deficiency letter if its application is found, during periodic compliance reviews, not to comply with the relevant requirements.

An applicant submitting a request for Commission certification will receive an order either granting or denying certification of QF status, or a letter requesting additional information or rejecting the application. Pursuant to 18 C.F.R. § 292.207(b)(3), the Commission must act on an application for Commission certification within 90 days of the later of the filing date of the application or the filing date of a supplement, amendment or other change to the application.

Waiver Requests

18 C.F.R. § 292.204(a)(3) allows an applicant to request a waiver to modify the method of calculation pursuant to 18 C.F.R. § 292.204(a)(2) to determine if two facilities are considered to be located at the same site, for good cause. 18 C.F.R. § 292.205(c) allows an applicant to request waiver of the requirements of 18 C.F.R. §§ 292.205(a) and (b) for operating and efficiency upon a showing that the facility will produce significant energy savings. A request for waiver of these requirements must be submitted as a petition for declaratory order, with the appropriate filing fee for a petition for declaratory order. Applicants requesting Commission recertification as part of a request for waiver of one of these requirements should electronically submit their completed Form 556 along with their petition for declaratory order, rather than filing their Form 556 as a separate request for Commission recertification. Only the filing fee for the petition for declaratory order must be paid to cover both the waiver request and the request for recertification if such requests are made simultaneously.

18 C.F.R. § 292.203(d)(2) allows an applicant to request a waiver of the Form 556 filing requirements, for good cause. Applicants filing a petition for declaratory order requesting a waiver under 18 C.F.R. § 292.203(d)(2) do not need to complete or submit a Form 556 with their petition.

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Geographic Coordinates

If a street address does not exist for your facility, then line 3c of the Form 556 requires you to report your facility's geographic coordinates (latitude and longitude). Geographic coordinates may be obtained from several different sources. You can find links to online services that show latitude and longitude coordinates on online maps by visiting the Commission's QF webpage at www.ferc.gov/QF and clicking the Geographic Coordinates link. You may also be able to obtain your geographic coordinates from a GPS device, Google Earth (available free at https://earth.google.com), a property survey, various engineering or construction drawings, a property deed, or a municipal or county map showing property lines.

Filing Privileged Data or Critical Energy Infrastructure Information in a Form 556

The Commission's regulations provide procedures for applicants to either (1) request that any information submitted with a Form 556 be given privileged treatment because the information is exempt from the mandatory public disclosure requirements of the Freedom of Information Act, 5 U.S.C. § 552, and should be withheld from public disclosure; or (2) identify any documents containing critical energy infrastructure information (CEII) as defined in 18 C.F.R. § 388.113 that should not be made public.

If you are seeking privileged treatment or CEII status for any data in your Form 556, then you must follow the procedures in 18 C.F.R. § 388.112. See www.ferc.gov/help/filing-quide/file-ceii.asp for more information.

Among other things (see 18 C.F.R. § 388.112 for other requirements), applicants seeking privileged treatment or CEII status for data submitted in a Form 556 must prepare and file both (1) a complete version of the Form 556 (containing the privileged and/or CEII data), and (2) a public version of the Form 556 (with the privileged and/or CEII data redacted). Applicants preparing and filing these different versions of their Form 556 must indicate below the security designation of this version of their document. If you are *not* seeking privileged treatment or CEII status for any of your Form 556 data, then you should not respond to any of the items on this page.

Non-Public: Applicant is seeking privileged treatment and/or CEII status for data contained in the Form 556 lines indicated below. This non-public version of the applicant's Form 556 contains all data, including the data that is redacted in the (separate) public version of the applicant's Form 556.
 Public (redacted): Applicant is seeking privileged treatment and/or CEII status for data contained in the Form 556 lines indicated below. This public version of the applicants's Form 556 contains all data except for data from the lines indicated below, which has been redacted.
Privileged : Indicate below which lines of your form contain data for which you are seeking privileged treatment
Critical Energy Infrastructure Information (CEII): Indicate below which lines of your form contain data for which you are seeking CEII status

The eFiling process described on page 2 will allow you to identify which versions of the electronic documents you submit are public, privileged and/or CEII. The filenames for such documents should begin with "Public", "Priv", or "CEII", as applicable, to clearly indicate the security designation of the file. Both versions of the Form 556 should be unaltered PDF copies of the Form 556, as available for download from www.ferc.gov/QF. To redact data from the public copy of the submittal, simply omit the relevant data from the Form. For numerical fields, leave the redacted fields blank. For text fields, complete as much of the field as possible, and replace the redacted portions of the field with the word "REDACTED" in brackets. Be sure to identify above all fields which contain data for which you are seeking non-public status.

The Commission is not responsible for detecting or correcting filer errors, including those errors related to security designation. If your documents contain sensitive information, make sure they are filed using the proper security designation.

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Form 556 Certification of Qualifying Facility (QF) Status for a Small Power Production or Cogeneration Facility

1b Applicant street c/o Cube Hydr 2 Bethesda Me Suite 1330	o Partners, LLC		
1c City Bethesda		1d State/prov	ince
1e Postal code 20814	1f Country (if not United States)	J.	1g Telephone number 240-482-2714
1h Has the instant fa	cility ever previously been certified as a Q	F? Yes X	No
1i If yes, provide the	docket number of the last known QF filin	g pertaining to tl	his facility: QF16 - 1311 - 000
1j Under which certi	fication process is the applicant making the	nis filing?	
Notice of self-co		-	ommission certification (requires filing e" section on page 3)
QF status. A not notice of self-cer	elf-certification is a notice by the applicant ice of self-certification does not establish a tification to verify compliance. See the "V 3 for more information.	a proceeding, an	d the Commission does not review a
1k What type(s) of C	F status is the applicant seeking for its fac	ility? (check all th	nat apply)
X Qualifying sma	ll power production facility status	ualifying cogene	eration facility status
11 What is the purpo	se and expected effective date(s) of this fi	ling?	
Original certific	ation; facility expected to be installed by	a	nd to begin operation on
F	previously certified facility to be effective		
(identify type(s	of change(s) below, and describe chang	e(s) in the Miscel	laneous section starting on page 19)
——————————————————————————————————————	ge and/or other administrative change(s)		
	ffecting plant equipment, fuel use, power		city and/or cogeneration thermal output
	correction to a previous filing submitted o		ng an maga 10)
_	pplement or correction in the Miscellaneo		
	owing three statements is true, check the basis sible, explaining any special circumstance		
previously gra	cility complies with the Commission's QF anted by the Commission in an order date Miscellaneous section starting on page 19	ed	virtue of a waiver of certain regulations (specify any other relevant waiver
	cility would comply with the Commission with this application is granted	's QF requiremer	nts if a petition for waiver submitted
	cility complies with the Commission's reg		

	2a Name of contact person			2b Telephone number	
	Eli Hopson			240-482-2714	
	2c Which of the following describes	the contact person's relati	onship to the app	plicant? (check one)	
_	Applicant (self) Empl	oyee, owner or partner of	applicant authori	zed to represent the applicant	
io	Employee of a company affilia	ted with the applicant auth	norized to represe	ent the applicant on this matter	
Jat	Lawyer, consultant, or other re	presentative authorized to	represent the ap	oplicant on this matter	
Jrn	2d Company or organization name	(if applicant is an individua	al, check here and	d skip to line 2e)	1
nfc	Cube Hydro Partners, LLC				
Contact Information	2e Street address (if same as Applic	ant, check here and skip to	line 3a)		0
ıta					_
Ö					
	2f City		2g State/provi	nce	
	2h Postal code	2i Country (if not United	States)		1
	3a Facility name				
on	Tuckertown				
ati	3b Street address (if a street addres	s does not exist for the faci	lity, check here a	nd skip to line 3c)⊠	69
0.				_	0
ا					
y Identification and Location	then you must specify the latitude the following formula to convert degrees + (minutes/60) + (secon provided a street address for you	de and longitude coordina to decimal degrees from d ds/3600). See the "Geogr	tes of the facility degrees, minutes aphic Coordinate pecifying the geo	ur facility by checking the box in line 3b, in degrees (to three decimal places). Use and seconds: decimal degrees = es" section on page 4 for help. If you graphic coordinates below is optional. North (+) 35.486 degrees	
lde	West (-)			South (-)	-
ţ.	3d City (if unincorporated, check he	re and enter nearest city) [
Facility	New London				_
Fa	3f County (or check here for indepe	ndent city) 3g	Country (if not	United States)	U
	Stanly				-
	Identify the electric utilities that are o	ontemplated to transact v	vith the facility.		
ies	4a Identify utility interconnecting w				
≝	Duke Energy Carolinas ar	nd Duke Energy Prog	ress		
ng Ut	4b Identify utilities providing wheel	ing service or check here it	none 🔀		0
Transacting Utilities	4c Identify utilities purchasing the u	seful electric power outpu	t or check here if	none 🔀	0
Tran	4d Identify utilities providing supple service or check here if none		ower, maintenan	ce power, and/or interruptible power	

FERC Form 556 Page 7 - All Facilities

utilities of direct ov	of the Public Utility Holding Company Act of 2005 (42 U.S.C. 16451(8)), and (2) for own or holding companies, provide the percentage of equity interest in the facility held by wners hold at least 10 percent equity interest in the facility, then provide the required ct owners with the largest equity interest in the facility.	that owner information	r. If no n for the
		c utility or olding	If Yes, % equity
		mpany	interest
1) Cube :	Yadkin Generation LLC Yes	No 🗌	100
2)	Yes	No 🗌	
3)	Yes	No 🗌	
43	Yes _	No 🗌	
5)	Yes	No 🗌	
6)	Yes	No 🗌	
7)	Yes	No 🗌	
8)	Yes	No 🗌	
9)	Yes	No 🗌	
10)	Yes	No 🗌	
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	6a Describe the primary energy input: (check one main category and, if applicable, one subcategory)							
	□Ві	iomass (specify)	⊠ Re	enewable reso	urces (specify)	☐ Geothe	rmal	
		☐ Landfill gas			ver - river	Fossil fu	uel (spec	ify)
		☐ Manure digester gas		☐ Hydro pov	ver - tidal	□ C	oal (not	waste)
		☐ Municipal solid waste		☐ Hydro pov	ver - wave	☐ F	uel oil/di	esel
		 Sewage digester gas 		☐ Solar - pho	otovoltaic	□ N	latural ga	s (not waste)
		☐ Wood		☐ Solar - the	rmal		ther foss	
		☐ Other biomass (describe or	n page 19)	☐ Wind			describe	on page 19)
	w	aste (specify type below in line	6b)		ewable resource on page 19)	Other (c	describe	on page 19)
	6b If you	specified "waste" as the primar	y energy inp	ut in line 6a, inc	dicate the type o	of waste fuel us	sed: (che	ck one)
5		Waste fuel listed in 18 C.F.R. § 2	92.202(b) (sp	ecify one of the	e following)			
		☐ Anthracite culm produce	d prior to July	23, 1985				
		Anthracite refuse that has ash content of 45 percent		neat content of	f 6,000 Btu or les	s per pound a	nd has ai	n average
		Bituminous coal refuse th average ash content of 25			ent of 9,500 Btu	per pound or	less and	has an
nput		Top or bottom subbitumi determined to be waste b (BLM) or that is located or the applicant shows that	y the United n non-Federa	States Departr I or non-Indian	nent of the Inter lands outside o	ior's Bureau of f BLM's jurisdic	f Land Ma ction, pro	anagement ovided that
Energy Input		Coal refuse produced on BLM or that is located on applicant shows that the	non- Federal	or non-Indian l	lands outside of	BLM's jurisdict	tion, pro	
ш		Lignite produced in assoc as a result of such a minin		ne production (of montan wax a	nd lignite that	t become	es exposed
		☐ Gaseous fuels (except nat	ural gas and	synthetic gas fi	rom coal) (descri	ibe on page 19))	
		Waste natural gas from ga ☐ C.F.R. § 2.400 for waste na compliance with 18 C.F.R.	atural gas; inc					
		☐ Materials that a governme	ent agency ha	as certified for	disposal by com	bustion (descr	ribe on p	age 19)
		☐ Heat from exothermic rea	ctions (descr	ibe on page 19) F	Residual heat (describe	on page 19)
		☐ Used rubber tires [☐ Plastic ma	terials	☐ Refinery of	f-gas	☐ Petro	leum coke
	1	Other waste energy input that h facility industry (describe in the lack of commercial value and ex	Miscellaneou	ıs section start	ing on page 19;	include a discu		
	energ	de the average energy input, cal gy inputs, and provide the relate 02(j)). For any oil or natural gas	ed percentage	e of the total av	erage annual er	nergy input to		
		Fuel		nual average er ut for specified		Percentage of annual energy		
		Natural gas			o Btu/h		0 %	
		Oil-based fuels			0 Btu/h		0 %	
}		Coal			0 Btu/h		0 %	

FERC Form 556 Page 9 - All Facilities

Indicate the maximum gross and maximum net electric power production capacity of the facility at the point(s) of delivery by completing the worksheet below. Respond to all items. If any of the parasitic loads and/or losses identified in lines 7b through 7e are negligible, enter zero for those lines.

7a The maximum gross power production capacity at the terminals of the individual generator(s) under the most favorable anticipated design conditions	40,500 kW
7b Parasitic station power used at the facility to run equipment which is necessary and integral to the power production process (boiler feed pumps, fans/blowers, office or maintenance buildings directly related to the operation of the power generating facility, etc.). If this facility includes non-power production processes (for instance, power consumed by a cogeneration facility's thermal host), do not include any power consumed by the non-power production activities in your reported parasitic station power.	2.9 kW
7c Electrical losses in interconnection transformers	o kW
7d Electrical losses in AC/DC conversion equipment, if any	0 kW
7e Other interconnection losses in power lines or facilities (other than transformers and AC/DC conversion equipment) between the terminals of the generator(s) and the point of interconnection with the utility	168.5 kW
7f Total deductions from gross power production capacity = 7b + 7c + 7d + 7e	171.4 kW
7g Maximum net power production capacity = 7a - 7f	40,328.6 kW

7h Description of facility and primary components: Describe the facility and its operation. Identify all boilers, heat recovery steam generators, prime movers (any mechanical equipment driving an electric generator), electrical generators, photovoltaic solar equipment, fuel cell equipment and/or other primary power generation equipment used in the facility. Descriptions of components should include (as applicable) specifications of the nominal capacities for mechanical output, electrical output, or steam generation of the identified equipment. For each piece of equipment identified, clearly indicate how many pieces of that type of equipment are included in the plant, and which components are normally operating or normally in standby mode. Provide a description of how the components operate as a system. Applicants for cogeneration facilities do not need to describe operations of systems that are clearly depicted on and easily understandable from a cogeneration facility's attached mass and heat balance diagram; however, such applicants should provide any necessary description needed to understand the sequential operation of the facility depicted in their mass and heat balance diagram. If additional space is needed, continue in the Miscellaneous section starting on page 19.

Tuckertown Dam is a concrete gravity and embankment structure and consists of a rockfill embankment section, an earthfill embankment section, three non-overflow gravity sections, a Tainter gate spillway section, and an integral intake/powerhouse.

The rockfill embankment is located between the east non-overflow section and the east abutment. It was constructed of dumped rockfill with a sloping impervious core. The earthfill embankment is a homogeneous earthfill section at the west abutment. This section wraps around the adjacent right non-overflow gravity section.

The east non-overflow gravity section is located at the east end of the powerhouse. The west non-overflow gravity section is located at the west end of the gated spillway section. The middle non-overflow section is located between the east end of the gated spillway and the west end of the powerhouse. The gate-controlled spillway section includes eleven Tainter gates that release surplus water during flood events.

The Tuckertown powerhouse and intake form a single structural unit integral with the dam. The powerhouse is located immediately downstream of the intake structure between the east non- overflow and middle non-overflow gravity sections.

Additional facility information is included in the miscellaneous section.



Information Required for Small Power Production Facility

If you indicated in line 1k that you are seeking qualifying small power production facility status for your facility, then you must respond to the items on this page. Otherwise, skip page 10.

must	respond to the items on this page. O	therwise, skip page 10				
	Pursuant to 18 C.F.R. § 292.204(a), t with the power production capacity resource, are owned by the same p megawatts. To demonstrate comp from this size limitation under the S (Pub. L. 101-575, 104 Stat. 2834 (1991) through 8e below (as applicable).	y of any other small po erson(s) or its affiliates, liance with this size lim solar, Wind, Waste, and 90) <i>as amended by</i> Pub	wer production facilities that us and are located at the same site itation, or to demonstrate that Geothermal Power Production L. 102-46, 105 Stat. 249 (1991))	te the same energy e, may not exceed 80 your facility is exempt Incentives Act of 1990 , respond to lines 8a		
	8a Identify any facilities with elect equipment of the instant facility, an at least a 5 percent equity interest.					
Ge	Check here if no such facilities exist.					
Certification of Compliance with Size Limitations	Facility location (city or county, state)	Root docket # (if any)	Common owner(s)	Maximum net power production capacity		
om) tati	1)	QF -		kW		
J. E	2)	QF -		kW		
n o	3)	QF -		kW		
tification with Size	Check here and continue in the	e Miscellaneous section	n starting on page 19 if addition	al space is needed		
e)	Are you seeking exemption from the size limitations in 18 C.F.R. § 292.204(a) by virtue of the Incentives Act? Yes (continue at line 8c below) No (skip lines 8c through 8e) 8c Was the original notice of self-certification or application for Commission certification of the facility filed on or before December 31, 1994? Yes No 8d Did construction of the facility commence on or before December 31, 1999? Yes No 8e If you answered No in line 8d, indicate whether reasonable diligence was exercised toward the completion of					
	the facility, taking into account all fa a brief narrative explanation in the particular, describe why construction toward completion of the facility.	Miscellaneous section :	starting on page 19 of the const			
Certification of Compliance with Fuel Use Requirements	Pursuant to 18 C.F.R. § 292.204(b), qualifying small power production facilities may use fossil fuels, in minimal amounts, for only the following purposes: ignition; start-up; testing; flame stabilization; control use; alleviation or prevention of unanticipated equipment outages; and alleviation or prevention of emergencies, directly affecting the public health, safety, or welfare, which would result from electric power outages. The amount of fossil fuels used for these purposes may not exceed 25 percent of the total energy input of the facility during the 12-month period beginning with the date the facility first produces electric energy or any calendar year thereafter.					
n of (Ise Re		9a Certification of compliance with 18 C.F.R. § 292.204(b) with respect to uses of fossil fuel: Applicant certifies that the facility will use fossil fuels exclusively for the purposes listed above.				
Certificatio with Fuel U	9b Certification of compliance with Applicant certifies that the a	amount of fossil fuel us input of the facility dur	ed at the facility will not, in agging the 12-month period begini	regate, exceed 25		

Information Required for Cogeneration Facility

If you indicated in line 1k that you are seeking qualifying cogeneration facility status for your facility, then you must respond to the items on pages 11 through 13. Otherwise, skip pages 11 through 13.

	energy (such as heat or suse of energy. Pursuant cycle cogeneration facilithermal application or p	92.202(c), a cogeneration facility produces electric energy and forms of useful thermal steam) used for industrial, commercial, heating, or cooling purposes, through the sequential to 18 C.F.R. § 292.202(s), "sequential use" of energy means the following: (1) for a toppingty, the use of reject heat from a power production process in sufficient amounts in a rocess to conform to the requirements of the operating standard contained in 18 C.F.R. § ottoming-cycle cogeneration facility, the use of at least some reject heat from a thermal or power production.
	10a What type(s) of cog	eneration technology does the facility represent? (check all that apply)
	Topping-cycle	cogeneration Bottoming-cycle cogeneration
	other requirements balance diagram de meet certain requir	te the sequential operation of the cogeneration process, and to support compliance with such as the operating and efficiency standards, include with your filing a mass and heat epicting average annual operating conditions. This diagram must include certain items and ements, as described below. You must check next to the description of each requirement it you have complied with these requirements.
	Check to certify	
	compliance with indicated requirement	Requirement
ration		Diagram must show orientation within system piping and/or ducts of all prime movers, heat recovery steam generators, boilers, electric generators, and condensers (as applicable), as well as any other primary equipment relevant to the cogeneration process.
gene natior		Any average annual values required to be reported in lines 10b, 12a, 13a, 13b, 13d, 13f, 14a, 15b, 15d and/or 15f must be computed over the anticipated hours of operation.
General Cogeneration Information		Diagram must specify all fuel inputs by fuel type and average annual rate in Btu/h. Fuel for supplementary firing should be specified separately and clearly labeled. All specifications of fuel inputs should use lower heating values.
ene		Diagram must specify average gross electric output in kW or MW for each generator.
G		Diagram must specify average mechanical output (that is, any mechanical energy taken off of the shaft of the prime movers for purposes not directly related to electric power generation) in horsepower, if any. Typically, a cogeneration facility has no mechanical output.
		At each point for which working fluid flow conditions are required to be specified (see below), such flow condition data must include mass flow rate (in lb/h or kg/s), temperature (in °F, R, °C or K), absolute pressure (in psia or kPa) and enthalpy (in Btu/lb or kJ/kg). Exception: For systems where the working fluid is <i>liquid only</i> (no vapor at any point in the cycle) and where the type of liquid and specific heat of that liquid are clearly indicated on the diagram or in the Miscellaneous section starting on page 19, only mass flow rate and temperature (not pressure and enthalpy) need be specified. For reference, specific heat at standard conditions for pure liquid water is approximately 1.002 Btu/(lb*R) or 4.195 kJ/(kg*K).
		Diagram must specify working fluid flow conditions at input to and output from each steam turbine or other expansion turbine or back-pressure turbine.
		Diagram must specify working fluid flow conditions at delivery to and return from each thermal application.
		Diagram must specify working fluid flow conditions at make-up water inputs.

orm 556 Page 12 - Cogeneration Fa	acilities
EPAct 2005 cogeneration facilities: The Energy Policy Act of 2005 (EPAct 2005) established a new section 210(the Public Utility Regulatory Policies Act of 1978 (PURPA), 16 USC 824a-3(n), with additional requirements for a qualifying cogeneration facility that (1) is seeking to sell electric energy pursuant to section 210 of PURPA and was either not a cogeneration facility on August 8, 2005, or had not filed a self-certification or application for Commission certification of QF status on or before February 1, 2006. These requirements were implemented by Commission in 18 C.F.R. § 292.205(d). Complete the lines below, carefully following the instructions, to demonship the distribution of the complete the lines below, carefully following the instructions of the complete the lines below, carefully following the instructions of the complete the lines below, carefully following the instructions of the complete the lines below, carefully following the instructions of the complete the lines below, carefully following the instructions of the complete the lines below, carefully following the instructions of the complete the lines below, carefully following the instructions of the complete the lines below, carefully following the instructions of the complete the lines below, carefully following the instructions of the complete the lines below, carefully following the instructions of the complete the lines below, carefully following the instructions of the complete the lines below, carefully following the instructions of the complete the lines below, carefully following the lines below, carefully following the instructions of the complete the lines below, carefully following the lines below the complete the li	any I (2) Dy the Instrate
11a Was your facility operating as a qualifying cogeneration facility on or before August 8, 2005? Yes N	lo
11b Was the initial filing seeking certification of your facility (whether a notice of self-certification or an applic for Commission certification) filed on or before February 1, 2006? Yes No	cation
If the answer to either line 11a or 11b is Yes, then continue at line 11c below. Otherwise, if the answers to both 11a and 11b are No, skip to line 11e below.	h lines
11c With respect to the design and operation of the facility, have any changes been implemented on or after February 2, 2006 that affect general plant operation, affect use of thermal output, and/or increase net power production capacity from the plant's capacity on February 1, 2006? Yes (continue at line 11d below)	
No. Your facility is not subject to the requirements of 18 C.F.R. § 292.205(d) at this time. However, it may subject to to these requirements in the future if changes are made to the facility. At such time, the appropriate would need to recertify the facility to determine eligibility. Skip lines 11d through 11j.	
11d Does the applicant contend that the changes identified in line 11c are not so significant as to make the fa a "new" cogeneration facility that would be subject to the 18 C.F.R. § 292.205(d) cogeneration requirements?	acility
Yes. Provide in the Miscellaneous section starting on page 19 a description of any relevant changes ma the facility (including the purpose of the changes) and a discussion of why the facility should not be considered a "new" cogeneration facility in light of these changes. Skip lines 11e through 11j.	ide to
No. Applicant stipulates to the fact that it is a "new" cogeneration facility (for purposes of determining applicability of the requirements of 18 C.F.R. § 292.205(d)) by virtue of modifications to the facility that initiated on or after February 2, 2006. Continue below at line 11e.	
11e Will electric energy from the facility be sold pursuant to section 210 of PURPA?	
Yes. The facility is an EPAct 2005 cogeneration facility. You must demonstrate compliance with 18 C.F.I 292.205(d)(2) by continuing at line 11f below.	
No. Applicant certifies that energy will <i>not</i> be sold pursuant to section 210 of PURPA. Applicant also ce its understanding that it must recertify its facility in order to determine compliance with the requireme 18 C.F.R. § 292.205(d) <i>before</i> selling energy pursuant to section 210 of PURPA in the future. Skip lines 1 through 11j.	ents of
11f Is the net power production capacity of your cogeneration facility, as indicated in line 7g above, less than equal to 5,000 kW?	or
Yes, the net power production capacity is less than or equal to 5,000 kW. 18 C.F.R. § 292.205(d)(4) provire rebuttable presumption that cogeneration facilities of 5,000 kW and smaller capacity comply with the requirements for fundamental use of the facility's energy output in 18 C.F.R. § 292.205(d)(2). Applicant certifies its understanding that, should the power production capacity of the facility increase above 5,00 kW, then the facility must be recertified to (among other things) demonstrate compliance with 18 C.F.R. 292.205(d)(2). Skip lines 11g through 11j.	00
No, the net power production capacity is greater than 5,000 kW. Demonstrate compliance with the	

requirements for fundamental use of the facility's energy output in 18 C.F.R. § 292.205(d)(2) by continuing on

the next page at line 11g.

Lines 11g through 11k below guide the applicant through the process of demonstrating compliance with the requirements for "fundamental use" of the facility's energy output. 18 C.F.R. § 292.205(d)(2). Only respond to the lines on this page if the instructions on the previous page direct you to do so. Otherwise, skip this page.

18 C.F.R. § 292.205(d)(2) requires that the electrical, thermal, chemical and mechanical output of an EPAct 2005 cogeneration facility is used fundamentally for industrial, commercial, residential or institutional purposes and is not intended fundamentally for sale to an electric utility, taking into account technological, efficiency, economic, and variable thermal energy requirements, as well as state laws applicable to sales of electric energy from a qualifying facility to its host facility. If you were directed on the previous page to respond to the items on this page, then your facility is an EPAct 2005 cogeneration facility that is subject to this "fundamental use" requirement.

The Commission's regulations provide a two-pronged approach to demonstrating compliance with the requirements for fundamental use of the facility's energy output. First, the Commission has established in 18 C.F.R. § 292.205(d)(3) a "fundamental use test" that can be used to demonstrate compliance with 18 C.F.R. § 292.205(d)(2). Under the fundamental use test, a facility is considered to comply with 18 C.F.R. § 292.205(d)(2) if at least 50 percent of the facility's total annual energy output (including electrical, thermal, chemical and mechanical energy output) is used for industrial, commercial, residential or institutional purposes.

Second, an applicant for a facility that does not pass the fundamental use test may provide a narrative explanation of and support for its contention that the facility nonetheless meets the requirement that the electrical, thermal, chemical and mechanical output of an EPAct 2005 cogeneration facility is used fundamentally for industrial, commercial, residential or institutional purposes and is not intended fundamentally for sale to an electric utility, taking into account technological, efficiency, economic, and variable thermal energy requirements, as well as state laws applicable to sales of electric energy from a qualifying facility to its host facility.

Complete lines 11g through 11j below to determine compliance with the fundamental use test in 18 C.F.R. § 292.205(d)(3). Complete lines 11g through 11j even if you do not intend to rely upon the fundamental use test to demonstrate compliance with 18 C.F.R. § 292.205(d)(2).

11g Amount of electrical, thermal, chemical and mechanical energy output (net of internal generation plant losses and parasitic loads) expected to be used annually for industrial, commercial, residential or institutional purposes and not sold to an electric utility	MWh
11h Total amount of electrical, thermal, chemical and mechanical energy expected to be sold to an electric utility	MWh
11i Percentage of total annual energy output expected to be used for industrial, commercial, residential or institutional purposes and not sold to a utility = 100 * 11g /(11g + 11h)	0 %

11j Is the response in line 11i greater than or equal to 50 percent?

Yes. Your facility complies with 18 C.F.R. § 292.205(d)(2) by virtue of passing the fundamental use test provided in 18 C.F.R. § 292.205(d)(3). Applicant certifies its understanding that, if it is to rely upon passing the fundamental use test as a basis for complying with 18 C.F.R. § 292.205(d)(2), then the facility must comply with the fundamental use test both in the 12-month period beginning with the date the facility first produces electric energy, and in all subsequent calendar years.

No. Your facility does not pass the fundamental use test. Instead, you must provide in the Miscellaneous section starting on page 19 a narrative explanation of and support for why your facility meets the requirement that the electrical, thermal, chemical and mechanical output of an EPAct 2005 cogeneration facility is used fundamentally for industrial, commercial, residential or institutional purposes and is not intended fundamentally for sale to an electric utility, taking into account technological, efficiency, economic, and variable thermal energy requirements, as well as state laws applicable to sales of electric energy from a QF to its host facility. Applicants providing a narrative explanation of why their facility should be found to comply with 18 C.F.R. § 292.205(d)(2) in spite of non-compliance with the fundamental use test may want to review paragraphs 47 through 61 of Order No. 671 (accessible from the Commission's QF website at www.ferc.gov/QF), which provide discussion of the facts and circumstances that may support their explanation. Applicant should also note that the percentage reported above will establish the standard that that facility must comply with, both for the 12-month period beginning with the date the facility first produces electric energy, and in all subsequent calendar years. See Order No. 671 at paragraph 51. As such, the applicant should make sure that it reports appropriate values on lines 11g and 11h above to serve as the relevant annual standard, taking into account expected variations in production conditions.



Information Required for Topping-Cycle Cogeneration Facility

Name of entity (thermal host)

If you indicated in line 10a that your facility represents topping-cycle cogeneration technology, then you must respond to the items on pages 14 and 15. Otherwise, skip pages 14 and 15.

The thermal energy output of a topping-cycle cogeneration facility is the net energy made available to an industrial or commercial process or used in a heating or cooling application. Pursuant to sections 292,202(c), (d) and (h) of the Commission's regulations (18 C.F.R. §§ 292,202(c), (d) and (h)), the thermal energy output of a qualifying topping-cycle cogeneration facility must be useful. In connection with this requirement, describe the thermal output of the topping-cycle cogeneration facility by responding to lines 12a and 12b below.

12a Identify and describe each thermal host, and specify the annual average rate of thermal output made available to each host for each use. For hosts with multiple uses of thermal output, provide the data for each use in separate rows.

Average annual rate of

thermal output
attributable to use (net of
Thermal host's relationship to facility;
Thermal host's use of thermal output

thermal output
attributable to use (net of
heat contained in process
return or make-up water)

2	taking thermal output	Thermal host's use of thermal output	return or make-up water)
1)		Select thermal host's relationship to facility	
		Select thermal host's use of thermal output	Btu/h
2)		Select thermal host's relationship to facility	
2)		Select thermal host's use of thermal output	· Btu/h
3)	*	Select thermal host's relationship to facility	
)		Select thermal host's use of thermal output	Btu/h
4)		Select thermal host's relationship to facility	
(4)		Select thermal host's use of thermal output	Btu/h
5)		Select thermal host's relationship to facility	
ا (د		Select thermal host's use of thermal output	Btu/h
6)		Select thermal host's relationship to facility	
6)	_	Select thermal host's use of thermal output	Btu/h

Check here and continue in the Miscellaneous section starting on page 19 if additional space is needed

12b Demonstration of usefulness of thermal output: At a minimum, provide a brief description of each use of the thermal output identified above. In some cases, this brief description is sufficient to demonstrate usefulness. However, if your facility's use of thermal output is not common, and/or if the usefulness of such thermal output is not reasonably clear, then you must provide additional details as necessary to demonstrate usefulness. Your application may be rejected and/or additional information may be required if an insufficient showing of usefulness is made. (Exception: If you have previously received a Commission certification approving a specific use of thermal output related to the instant facility, then you need only provide a brief description of that use and a reference by date and docket number to the order certifying your facility with the indicated use. Such exemption may not be used if any change creates a material deviation from the previously authorized use.) If additional space is needed, continue in the Miscellaneous section starting on page 19.



Applicants for facilities representing topping-cycle technology must demonstrate compliance with the topping-cycle operating standard and, if applicable, efficiency standard. Section 292.205(a)(1) of the Commission's regulations (18 C.F.R. § 292.205(a)(1)) establishes the operating standard for topping-cycle cogeneration facilities: the useful thermal energy output must be no less than 5 percent of the total energy output. Section 292.205(a)(2) (18 C.F.R. § 292.205(a)(2)) establishes the efficiency standard for topping-cycle cogeneration facilities for which installation commenced on or after March 13, 1980: the useful power output of the facility plus one-half the useful
thermal energy output must (A) be no less than 42.5 percent of the total energy input of natural gas and oil to the facility; and (B) if the useful thermal energy output is less than 15 percent of the total energy output of the facility, be no less than 45 percent of the total energy input of natural gas and oil to the facility. To demonstrate compliance with the topping-cycle operating and/or efficiency standards, or to demonstrate that your facility is exempt from the efficiency standard based on the date that installation commenced, respond to lines 13a through 13l below.

If you indicated in line 10a that your facility represents *both* topping-cycle and bottoming-cycle cogeneration technology, then respond to lines 13a through 13l below considering only the energy inputs and outputs attributable to the topping-cycle portion of your facility. Your mass and heat balance diagram must make clear which mass and energy flow values and system components are for which portion (topping or bottoming) of the cogeneration system.

cogeneration system.	
13a Indicate the annual average rate of useful thermal energy output mad	le available
to the host(s), net of any heat contained in condensate return or make-up w	
13b Indicate the annual average rate of net electrical energy output	
	kW
13c Multiply line 13b by 3,412 to convert from kW to Btu/h	
The control of the state of the control of the state of the control of the contro	0 Btu/h
13d Indicate the annual average rate of mechanical energy output taken of	directly off
of the shaft of a prime mover for purposes not directly related to power pro	oduction
(this value is usually zero)	hp
13e Multiply line 13d by 2,544 to convert from hp to Btu/h	
	0 Btu/h
13f Indicate the annual average rate of energy input from natural gas and	oil
	Btu/h
13g Topping-cycle operating value = 100 * 13a / (13a + 13c + 13e)	
	0 %
13h Topping-cycle efficiency value = 100 * (0.5*13a + 13c + 13e) / 13f	
	0 %
13i Compliance with operating standard: Is the operating value shown in	line 13g greater than or equal to 5%?
Yes (complies with operating standard) No (does no	t comply with operating standard)
13j Did installation of the facility in its current form commence on or after	March 13, 1980?
Yes. Your facility is subject to the efficiency requirements of 18 C.F.	R § 292 205(a)(2) Demonstrate
compliance with the efficiency requirement by responding to line	
complained with the efficiency requirement by responding to line	isk of 1st, as applicable, selett.
No. Your facility is exempt from the efficiency standard. Skip lines	13k and 13l.
13k Compliance with efficiency standard (for low operating value): If the o	operating value shown in line 13g is less
than 15%, then indicate below whether the efficiency value shown in line 1	
Yes (complies with efficiency standard) No (does no	t comply with efficiency standard)
131 Compliance with efficiency standard (for high operating value): If the	operating value shown in line 13g is
greater than or equal to 15%, then indicate below whether the efficiency va	alue shown in line 13h is greater than or
equal to 42.5%:	
Yes (complies with efficiency standard) No (does no	t comply with efficiency standard)

Information Required for Bottoming-Cycle Cogeneration Facility

If you indicated in line 10a that your facility represents bottoming-cycle cogeneration technology, then you must respond to the items on pages 16 and 17. Otherwise, skip pages 16 and 17.

	The thermal energy output of a bottoming-cycle cogeneration facility is the energy related to the process(es) from which at least some of the reject heat is then used for power production. Pursuant to sections 292.202(c) and (e) of the Commission's regulations (18 C.F.R. § 292.202(c) and (e)), the thermal energy output of a qualifying bottoming-cycle cogeneration facility must be useful. In connection with this requirement, describe the process(es) from which at least some of the reject heat is used for power production by responding to lines 14a and 14b below. 14a Identify and describe each thermal host and each bottoming-cycle cogeneration process engaged in by each host. For hosts with multiple bottoming-cycle cogeneration processes, provide the data for each process in separate rows.					
-		Name of entity (thermal host) performing the process from which at least some of the reject heat is used for power production	Thermal host's relationship to facility; Thermal host's process type	Has the energy input to the thermal host been augmented for purposes of increasing power production capacity? (if Yes, describe on p. 19)		
	1)	•	Select thermal host's relationship to facility Select thermal host's process type	Yes No No		
	2)		Select thermal host's relationship to facility Select thermal host's process type	Yes No No		
	3)		Select thermal host's relationship to facility Select thermal host's process type	Yes No No		
tom Sutp		<u> </u>	e Miscellaneous section starting on page 19 if addit	*		
Usefulness of Bottoming-Cycle Thermal Output	14b Demonstration of usefulness of thermal output: At a minimum, provide a brief description of each process identified above. In some cases, this brief description is sufficient to demonstrate usefulness. However, if your facility's process is not common, and/or if the usefulness of such thermal output is not reasonably clear, then you must provide additional details as necessary to demonstrate usefulness. Your application may be rejected and/or additional information may be required if an insufficient showing of usefulness is made. (Exception: If you have previously received a Commission certification approving a specific bottoming-cycle process related to the instant facility, then you need only provide a brief description of that process and a reference by date and docket number to the order certifying your facility with the indicated process. Such exemption may not be used if any material changes to the process have been made.) If additional space is needed, continue in the Miscellaneous section starting on page 19.					
				,		
				,		

No (does not comply with efficiency standard)

Bottoming-Cycle Operating and Efficiency Value Calculation

Applicants for facilities representing bottoming-cycle technology and for which installation commenced on or after
March 13, 1990 must demonstrate compliance with the bottoming-cycle efficiency standards. Section 292.205(b) o
the Commission's regulations (18 C.F.R. § 292.205(b)) establishes the efficiency standard for bottoming-cycle
cogeneration facilities: the useful power output of the facility must be no less than 45 percent of the energy input
of natural gas and oil for supplementary firing. To demonstrate compliance with the bottoming-cycle efficiency
standard (if applicable), or to demonstrate that your facility is exempt from this standard based on the date that
nstallation of the facility began, respond to lines 15a through 15h below.

If you indicated in line 10a that your facility represents *both* topping-cycle and bottoming-cycle cogeneration technology, then respond to lines 15a through 15h below considering only the energy inputs and outputs attributable to the bottoming-cycle portion of your facility. Your mass and heat balance diagram must make clear which mass and energy flow values and system components are for which portion of the cogeneration system (topping or bottoming).

15a Did installation of the facility in its current form commence on or after March 13, 1980?	
Yes. Your facility is subject to the efficiency requirement of 18 C.F.R. § 292.205(b). Detwith the efficiency requirement by responding to lines 15b through 15h below.	monstrate compliance
No. Your facility is exempt from the efficiency standard. Skip the rest of page 17.	
15b Indicate the annual average rate of net electrical energy output	kW
15c Multiply line 15b by 3,412 to convert from kW to Btu/h	o Btu/h
15d Indicate the annual average rate of mechanical energy output taken directly off of the shaft of a prime mover for purposes not directly related to power production (this value is usually zero)	hp
15e Multiply line 15d by 2,544 to convert from hp to Btu/h	0 Btu/h
15f Indicate the annual average rate of supplementary energy input from natural gas or oil	Btu/h
15g Bottoming-cycle efficiency value = 100 * (15c + 15e) / 15f	0 %

Yes (complies with efficiency standard)

Certificate of Completeness, Accuracy and Authority

Applicant must certify compliance with and understanding of filing requirements by checking next to each item below and signing at the bottom of this section. Forms with incomplete Certificates of Completeness, Accuracy and Authority will be rejected by the Secretary of the Commission.

Signer identified below certifies the following: (check all items and applicable subitems)

He or she has read the filing, including any information contained in any attached documents, such as cogeneration mass and heat balance diagrams, and any information contained in the Miscellaneous section starting on page 19, an knows its contents.							
\boxtimes He or she has provided all of the required information for certification, and the provided information is true as stated, to the best of his or her knowledge and belief.							
	hority to sign the filing; as required by Rule 2005(a) 35.2005(a)(3)), he or she is one of the following: (che	(3) of the Commission's Rules of eck one)	of				
☐ The person on whose behalf to	the filing is made						
 An officer of the corporation, 	trust, association, or other organized group on beh	alf of which the filing is made					
An officer, agent, or employe filing is made	of the governmental authority, agency, or instrum	entality on behalf of which the	<u> </u>				
A representative qualified to practice and Procedure (18 C.	A representative qualified to practice before the Commission under Rule 2101 of the Commission's Rules of Practice and Procedure (18 C.F.R. § 385.2101) and who possesses authority to sign						
He or she has reviewed all automatic Miscellaneous section starting on page	calculations and agrees with their results, unless of ge 19.	herwise noted in the					
He or she has provided a copy of this Form 556 and all attachments to the utilities with which the facility will interconnect and transact (see lines 4a through 4d), as well as to the regulatory authorities of the states in which the facility and those utilities reside. See the Required Notice to Public Utilities and State Regulatory Authorities section or page 3 for more information.							
Provide your signature, address and signature date below. Rule 2005(c) of the Commission's Rules of Practice and Procedure (18 C.F.R. § 385.2005(c)) provides that persons filing their documents electronically may use typed characters representing his or her name to sign the filed documents. A person filing this document electronically should sign (by typing his or her name) in the space provided below.							
Your Signature	Your address	Date					
Eli Hopson	2 Bethesda Metro Center, Suite						
Cube Hydro Partners, LLC	1330, Bethesda, MD 20814	3/9/2018					
Audit Notes	· ·						
Commission Staff Use Only:							

Miscellaneous

Use this space to provide any information for which there was not sufficient space in the previous sections of the form to provide. For each such item of information *clearly identify the line number that the information belongs to.* You may also use this space to provide any additional information you believe is relevant to the certification of your facility.

Your response below is not limited to one page. Additional page(s) will automatically be inserted into this form if the length of your response exceeds the space on this page. Use as many pages as you require.

Section 11 (continued):

Cube Yadkin Generation LLC (Applicant) submits this self-recertifiation to (i) notify the Commission of a change in the ownership of the Tuckertown facility, and (ii) provide contact information for Applicant. Pursuant to a transaction authorized by the Commission in Docket No. EC16-157 (Transaction), on February 1, 2017, Applicant acquired 100% of the ownership interests in the Tuckertown facility from Alcoa Power Generating, Inc. (APGI). See Alcoa Power Generating Inc., et al., 156 FERC ¶ 62,237 (2016). As a result of the Transaction, the Tuckertown facility is now directly owned by Applicant, which is an indirect wholly-owned subsidiary of Helix Partners LLC. APGI no longer owns any interests in the facility.

Section 5b (continued):

Cube Hydro Carolinas LLC is a wholly-owned direct subsidiary of Helix Partners LLC, which is indirectly controlled by I Squared Capital, a private equity investment manager having a series of limited partnership investment and co-investment funds operated by a general partner that is wholly controlled by I Squared Capital.

Section 7h (continued):

The structure consists of a concrete substructure containing three water passages and a conventional steel truss and frame structure. The intake structure includes trashracks and six motor operated fixed wheel headgates.

The Tuckertown powerhouse contains three 12,680 kW Kaplan turbines, each operating under a net head of 53.5 ft, direct-connected to generators having a total capacity of 46,665 kW (Units 1, 2, and 3 @ 15,555 kW maximum capacity), for a total installed capacity of 38,040 kW as limited by the turbines. The Tuckertown Development has a total hydraulic capacity of 11,475 cfs.

The Tuckertown facility also includes the limited and discrete interconnection equipment necessary to connect the facility to the transmission grid.

CERTIFICATE OF SERVICE

I certify that a copy of Duke Energy Progress, LLC's and Duke Energy Carolinas, LLC's Cross-Examination Exhibits, in Docket Nos. E-2, Sub 1177 and E-7, Sub 1172 has been served by electronic mail, hand delivery, or by depositing a copy in the United States Mail, 1st Class Postage Prepaid, properly addressed to parties of record.

This the 5th day of March, 2021.

Kendrick C. Fentress

Associate General Counsel

Kendrick C. derstoes

Duke Energy Corporation

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